Superintendent of the Motor Transportation Division of the South Carolina Public Service Commission, and as Representative Thereof; Benjamin K. Sanders, Individually, and as State Inspector for the South Carolina Public Service Commission for Charleston County, and as Representative of All Like Officers in South Carolina; Harold Fox, Individually, and as Magistrate's Constable in Charleston County, and as Representative of All Like Officers in South Carolina; Christian H. Ortmann, Individually, and as Chief of Police for the City of Charleston, South Carolina, and as Representative of All Municipal Police Officers in the State of South Carolina, Defendants

BILL OF COMPLAINT—Filed August 11, 1936

[fol. 3] To the Honorable the Judge of the United States District Court for the Eastern District of South Carolina:

The plaintiffs above named in the caption hereof bring this bill of complaint against the defendants above named, and for their cause and action respectfully represent unto your Honor:

I

1. That the plaintiffs, Planter's Fertilizer & Phosphate Co., and Merchant's Fertilizer Co., with their principal offices and place of business in the City of Charleston, South, Carolina; Poole Transportation, Inc., with its principal office and place of business at Greenville, South Carolina; and South Carolina Produce Association, with its principal office and place of business in the town of Meggetts, South Carolina, are each of them a corporation, organized and existing under and by virtue of the laws of the State of South Carolina.

That the plaintiffs, Barnwell Bros., Inc., with its principal office and place of business in the City of Burlington, North Carolina; Horton Motor Lines, Inc., National Convoy & Trucking Company, and Carolina Transfer & Storage Co., with their principal offices and places of business in the City of Charlotte, North Carolina; and Akers & Hudson Motor Lines, Inc., with its principal office and place of business in the City of Gastonia, North Carolina; are each of them a corporation, organized and existing un-

der and by virtue of the laws of the State of North Carolina.

That the plaintiffs, Sarah A. Geraty, John W. Geraty, and Charles W. Geraty, constitute a partnership trading as William C. Geraty Co., and are each of them residents of Yonge's Island, in the County of Charleston South Carolina and are each of them citizens of the State of South Carolina.

That the plaintiff, Dewey D. Maner, is a sole trader, trading as Maner Transfer Co., and is a resident of the City of Rome, Georgia, and is a citizen of the State of Georgia.

2. That the defendants, South Carolina State Highway Department, and South Carolina Public Service Commission, are administrative agencies of the State of South Carolina, organized and existing under and by virtue of the laws of the State of South Carolina.

That the defendant, Joseph M. Poulnot, is a resident of the County of Charleston, in the Eastern District of South Carolina, and is Sheriff of such County, and that he is representative of all such officers in the State of South Carolina.

That the defendant, George Bell Timmerman, is a resident of the town of Lexington in Lexington County, South Carolina, in the Eastern District of South Carolina, and is chairman of the State Highway Commission of such State, and that he is representative of such Commission.

That the defendant, Ben. M. Sawyer, is a resident of the City of Columbia, South Carolina, in the Eastern District of South Carolina, and is Chief Highway Commissioner of South Carolina.

[fol. 4] That the defendant, Alfred W. Bohlen is a resident of the City of Columbia, South Carolina, in the Eastern District thereof, and is Director of the Motor Vehicle Division of the State Highway Department of such State, and that he is representative of all officers and employes of such Division.

That the defendant, S. Eakin Wilson, is a resident of the City of Charleston, South Carolina, in the Eastern District thereof and is State Inspector for the State Highway Department of such State for the County of Charleston, and that he is representative of all such officers in such State.

That the defendant, Tee Hutto, is a resident of the County

of Charleston, South Carolina, in the Eastern District thereof, and is a Patrolman for the State Highway Department of such State for the County of Charleston, and that he is representative of all such officers in such State.

That the defendant, James W. Wolfe, is a resident of the Town of Inman, Spartanburg County, South Carolina, in the Western District thereof, and is Chairman of the Public Service Commission of such State, and that he is representative of the members of such Commission and the officers thereof.

That the defendant, William W. Goodman, is a resident of the City of Columbia, South Carolina, in the Eastern District thereof, and is Superintendent of the Motor Transportation Division of the South Carolina Public Service Commission, and that he is representative of the officers and employees of such Division.

That the defendant, Benjamin K. Sanders, is a resident of the Town of Walterboro, Colleton County, South Carolina, in the Eastern District thereof, and is State Inspector for the Public Service Commission of such State for the County of Charleston, and that he is representative of all such officers in such State.

That the defendant, Harold Fox, is a resident of Charleston County, South Carolina, in the Eastern District thereof, and is a Magistrate's Constable in Charleston County, and that he is a representative of all such officers in such State.

That the defendant, Christian H. Ortmann, is a resident of the City of Charleston, South Carolina, in the Eastern District thereof, and is Chief of Police of the City of Charleston, and that he is representative of all municipal police officers in the cities of such State.

That each of said individual defendants is an officer either of the State of South Carolina, or of a County or municipality thereof, and all of the above-mentioned defendants are charged with the duty of enforcing, and are empowered to enforce the various laws of the State of South Carolina affecting the plaintiffs hereto, as hereinafter appears, including Act No. 259 of 1933, Regulating and Limiting the Use of the Public Highway in Such State by Motor Trucks, and including Chapter 162 (Sections 8507-8530) Code of Laws of South Carolina, 1932.

II

3. That the jurisdiction of this Court is invoked because the subject matter of the action involves the rights of the plaintiffs under the laws and the Constitution of the United States and the amount in controversy, as to each of the plaintiffs, exclusive of interest and costs, exceeds the sum and value of $3,000.00, as will hereafter appear; and because the suit arises under a law of the United States regulating commerce.

[fol. 5] III

4. That across the State of South Carolina lie trunk arteries of interstate commerce, directly serving and affecting the people of the State of South Carolina, and the people of the States of the Southeast, the Atlantic Seaboard, the Northeast, and the Middle West; that these trunk arteries are natural and essential channels, in the commerce of the nation, for the transportation and exchange of commodities and for intercourse between the peoples of the several states of the United States.

That the fundamental economic and social needs of the peoples of the State of South Carolina and of the various states served by these channels of interstate commerce have for many years past required, do now require, and will continue increasingly to require, that a large share of the movement of goods and commodities in such commerce be transported by motor carriers; that certain necessary and indispensable services and functions of interstate commerce can be performed only by motor transportation on the interstate highways, other methods of transportation being for such purposes totally inefficient and inadequate.

That to meet these needs and to perform these essential functions and services, various corporations and individuals, representative of whom are seven of the plaintiffs hereto, have for many years past invested their monies, properties, and efforts, and have developed, and now offer, and desire to continue to offer, to the people of South Carolina, and to the people of the various States served by these channels of commerce, an adequate, economical and efficient transportation service by motor carriage on the highways; that such commerce requires the use of certain trunk highways leading into, from and across the State of South Caro-

lina; that these highways have been constructed with the aid of funds derived from the users of such highways, and from the government of the United States under the Federal Highway Act, as amended, and other Federal Acts, and that they are and have been maintained by funds derived from the users of such highways; that these motor carriers, including the seven representative plaintiffs hereto, have always contributed and will continue to contribute their due and proportionate share of these costs of construction and maintenance; that these highways have been built and maintained in accordance with the best engineering standards and specifications for highway construction, under the most favorable climatic and sub-soil conditions, and in accordance with the requirements of the Federal Highway Act that *"only such durable types of surface and kinds of material shall be adopted for the construction and reconstruction of any highway for the primary or interstate * * * systems as will adequately meet the existing and probable future traffic needs and conditions thereon", and in accordance with the specifications adopted by Secretary of the Agriculture pursuant to the said Federal Highway Act;* that these highways are now adequate, were designed, and by the specifications adopted by the Secretary of Agriculture pursuant to said Federal Highway Act, as amended, and other Federal Acts, were intended to carry the volume and description of motor traffic now borne by them, including equipment of such specifications as that now possessed and in use by the aforesaid interstate motor carriers and the seven representative plaintiffs hereto, and such motor traffic as may be reasonably expected in the development of a more adequate and efficient interstate system of motor transportation, without causing unreasonable or disproportionate wear and tear upon said highways, or the deterioration thereof, or in any unreasonable manner endangering the safety and lives of the traveling public, or increasing the cost of maintenance of said highways.

5. That, nevertheless, the General Assembly of South [fol. 6] Carolina, in 1933, enacted its Act No. 259, approved April 28, 1933 (38 State. 340) entitled: An Act to Regulate and Limit the Use of the Public Highways in the State by Motor Trucks, Semi-trailers, and Trailers, to Enlarge the Powers of the State Highway Department and Other Bodies

Having like Jurisdiction in Incorporated Cities and Towns in Respect Thereof; and to Provide for the Enforcement of this Act and Prescribe Penalties for the Violation thereof and Exempting Certain of such Motor Trucks, Semi-trailer Motor Trucks, Semi-Trailers and Trailers from the Provisions Hereof, or Certain of Such Provisions, and to Repeal All Laws Inconsistent with This Act.

That Section 3 of such Act provides that *"no person shall use or operate any trailer, as defined in this Act, on any* highway." Section 2 of such Act defines a "trailer" as *"any vehicle designed to be drawn by a motor truck, but supported wholly upon its own wheels, and intended for the carriage of freight or merchandise."*

That Section 4 of such Act provides that *"No person shall operate on any highway any motor truck, or semi-trailer truck whose gross weight, including load, shall exceed* 20,000 *pounds"*. Section 2 of such Act defines a "semi-trailer motor truck" as *"any motor propelled truck, not operated or driven on fixed rails or tracks, designed to draw, and to support the front end of a semi-trailer. The tractor (or motor propelled truck), together with the semi-trailer shall be considered one unit, and the words 'semi-trailer motor truck' as used in this Act shall mean and embrace such entire unit."*

6. The plaintiffs hereto alleged that Section 3 and 4 of such Act are in violation of the 14th Amendment to the Constitution of the United States, in that they constitute an unreasonable, arbitrary and capricious interference with the rights of the plaintiffs to use the highways in a reasonable manner and for a lawful purpose; that such regulations have no real and substantial relation to the avowed objects and purposes of such Act, as declared in Section 1 thereof; that is, to achieve economy in highway costs and to protect the safety and lives of the traveling public, and no real and substantial relation to any other objects or purposes properly within the police power of the State of South Carolina; that the enforcement of such Act will not only not achieve such objects and purposes, but will tend to damage and destroy the highways of South Carolina and prevent the free and safe use of the highways of South Carolina by the traveling public, by increasing the number of vehicles on the highways, and diverting the traffic of motor transportation to smaller, over-loaded, and more

dangerous trucks; that the actual result of its enforcement will be economic, not economical, and will be to limit arbitrarily and unreasonably the use of the public highway by motor trucks engaged in interstate commerce.

7. Plaintiffs further allege that such provisions of said Act are in violation of Section 8 of Article 1 of the Constitution of the United States, in that they have operated, and if enforced, will continue to operate, as a direct and substantial burden on interstate commerce; that the maximum gross weight allowed by other States through which pass the channels of interstate commerce into, from and across the State of South Carolina, are far in excess of the maximum weight allowed by such Act of the State of South Carolina, although the highways of such States are no better constructed or maintained than the highways of the State of South Carolina, and in most cases are not as well constructed or maintained as the highways of the State of South Carolina; that the essential services and functions of interstate commerce cannot be performed by the several plaintiff carriers with the use of motor equipment limited to a maximum weight of 20,000 pounds; that the effect of [fol. 7] such disparity in the case of the State of South Carolina is effectively to disturb and block the orderly and efficient flow of transportation through said channels of interstate commerce into, from and across the State of South Carolina, and effectively to prevent all interstate motor carriers, of which the seven carrier plaintiffs hereto are representative, from rendering to the public that adequate, economical and efficient transportation which is essential to the communities served by them, and which is required by law, and which it is their duty and desire to perform, if permitted so to do.

8. That such Sections of said Act are so arbitrary and unreasonable as to defeat the useful purposes for which the Government of the United States, pursuant to the Federal Highway Act, as amended, and other Federal Acts, has made its large contribution towards the bettering of the highway system of the United States, and for the purposes of the national defense.

9. That the Seventy-fourth Congress of the United States, in August, 1935, passed an Act, entitled the "Motor Carrier Act, 1935," amending and supplementing the Inter-

state Commerce Act, as amended, said Motor Carrier Act being designated as Part II of the Interstate Commerce Act, and was approved by the President of the United States on August 9, 1935; that the said Motor Carrier Act vests in the Interstate Commerce Commission and in "Joint Boards" created under such Act, full, complete and exclusive control and jurisdiction over interstate commerce by motor vehicle and all interstate motor carriers, and thus pre-empted the field of their regulation, and thereby prohibited and excluded the several States of the Union from regulating interstate commerce by motor carriers and motor carriers engaged in interstate commerce, and superseded such legislative enactments of the several states attempting to regulate interstate commerce, as may have been enacted and effective before its passage, including the aforesaid Act of the State of South Carolina.

The said Motor Carrier Act, specifically or by necessary intendment, vests in the Commission and in the "Joint Boards" to be created under such Act, complete and exclusive jurisdiction, as to interstate commerce by motor carriers, over all certificates of public convenience and necessity, permits, rates, fares, charges, practices, discriminations, preferences, adequate service, through rates, economical and efficient service, instrumentalities, vehicles, safety or operation and equipment, standards of equipment, maximum hours and qualifications of employees, weights, lengths, widths, heights, brakes, lights, and other appliances, and all other matters in connection with safety of operation and equipment and standards of equipment, which may now or hereafter require regulation in connection with interstate commerce by motor carriers.

That the said Motor Carrier Act, in Section 205 thereof, recognizing the need for co-operation with the States as to matters of local concern, provides that the Interstate Commerce Commission may refer various matters to Joint Boards, which shall be composed solely of members from the interested States; that the Commission may refer to a Joint Board any matter not specifically mentioned in said section which may arise under the Motor Carrier Act; that pursuant to the provisions of said Section, the State of South Carolina has nominated and the Interstate Commerce Commission has appointed Joint Board representatives for the State of South Carolina.

That in Section 202 (a) of said Motor Carriers Act it is declared to be the policy of Congress "to regulate transportation by motor carriers in such manner as to recognize and preserve the inherent advantages of, and foster sound [fol. 8] economic conditions in, such transportation and among such carriers in the public interest; promote adequate, economical and efficient service by motor carriers, and reasonable charges therefor, without unjust discriminations, undue preferences or advantages, and unfair or destructive competitive practices; improve the relations between and co-ordinate transportation by and regulation of, motor carriers and other carriers; develop and preserve a highway transportation system properly adapted to the needs of the commerce of the United States and of the national defense, and co-operate with the several States and the duly authorized officials thereof and with any organization of motor carriers in the administration and enforcement of this part."

That such Act of the State of South Carolina, in addition to provisions arbitrarily excluding trailers from the highways and limiting the gross weight of all motor trucks and semi-trailer trucks to 20,000 pounds; further, in Sections 5, 6, and 7 thereof, regulates the height, width, and length of all motor-trucks and semi-trailer trucks operating on the highways of South Carolina, including those operating in interstate commerce; and by other sections thereof regulates other matters relating to the safety of operation and equipment and standards of equipment, including those drivers employed by motor carriers engaged in interstate commerce.

Plaintiffs allege that the Motor Carrier Act, 1935, has entirely and completely superseded the said Sections 3, 4, 5, 6, and 7 of such Act of South Carolina, insofar as they may apply to motor carriers engaged in interstate commerce, and such other provisions of such Act that regulate other matters relating to the safety of operation and equipment and standards of equipment of trucks engaged in interstate commerce, and the qualifications of drivers employed by motor carriers engaged in interstate commerce; and that such provisions were void and of no effect, as to such motor carriers, from the date of the passage of such Motor Carrier Act.

That pursuant to the duty imposed and the authority conferred upon it by Section 204 (a) (1) and (2) of such

Motor Carrier Act, 1935, the Interstate Commerce Commission did on July 1, 1936, promulgate proposed safety regulations.

Plaintiffs allege that the enforcement of said provisions of such Act of South Carolina as to motor carriers engaged in interstate commerce, does and will operate as a direct and substantial burden on and interference with interstate commerce, and is thus in violation of Section 8, Article 1, of the Constitution of the United States, in that such enforcement subverts and defeats the declared purposes of the said Motor Carrier Act; that such provisions were not intended to and do not operate to "recognize and preserve the inherent advantages of, and foster sound economic conditions in" motor transportation; that enforcement of such provisions of said Act will prevent, rather than promote "adequate, economical and efficient service by motor carriers"; will create "unjust discriminations, undue preferences and advantages", will operate to discriminate against and destroy the business and service of interstate transportation by motor carriers into, from and across the State of South Carolina, in favor of other forms of transportation, and will render of no effect the effort of Congress by the Motor Carrier Act to "improve the relations between, and to co-ordinate transportation by and regulation of, motor carriers and other carriers"; that such enforcement will operate to destroy the present highway transportation system into, from and across the State of South Carolina, and prevent the development and preservation of "a highway transportation system properly adapted to the needs of the commerce of the United States and of the national defense", as contemplated by said Motor Carrier Act, 1935.

[fol. 9] That such defendants, and those for whom they are by this bill alleged representative, and their officers, deputies, agents and employees, purporting to act under and pursuant to such Act, and under color of their representative offices, have unlawfully interferred with and are threatening to interfere with, and as the plaintiffs hereto are informed and believe, propose to interfere with, the lawful operation on the highways of South Carolina by the several interstate motor carriers plaintiffs hereto, of motor equipment which does not, and cannot—if the present adequate, economical and efficient transportation service is to be

maintained, and if the necessary and indispensable services and functions of interstate commerce are to be performed comply with the restrictions and limitations of the Sections 3 and 4 of such Act of the State of South Carolina; that said defendants have arrested, prosecuted, and caused to be fined the agents, servants and employees of such plaintiffs lawfully operating such motor equipment on the highways in interstate commerce, and under the jurisdiction of the Interstate Commerce Commission as heretofore appears; and threaten in the future to arrest, prosecute and cause to be fined such agents, servants and employees of such plaintiffs; that the South Carolina Public Service Commission has refused, and is continuing to refuse to issue such interstate carriers, plaintiffs hereto, operating licenses for equipment not complying with the aforesaid limitations of such Act, although by the laws of South Carolina, operating licenses must be obtained by said plaintiffs for each unit of equipment operated on the highways; that the officers and agents of such Public Service Commission of South Carolina, defendants hereto, and their deputies and employees have arrested, prosecuted and caused to be fined, the agents, servants and employees of such carriers, and threaten in the future to arrest, prosecute and cause to be fined such agents, servants and employees of such carriers, for their failure to have such licenses; that such unlawful interference by arrests, prosecutions, and fines, has interrupted and impaired the service rendered by such carriers, and that if continued, will cause the plaintiffs hereto irreparable damage; that if the aforesaid threats and proposals are carried out, the plaintiffs will be irreparably damaged in great amount, and their businesses will be jeopardized, if not entirely ruined, as will appear more fully hereafter.

That such defendants, and those for whom they are by this bill alleged representative, and their officers, deputies, agents and employees have been enforcing, are enforcing, and threaten to continue to enforce the provisions of Section 5, 6, and 7 of such South Carolina Act, and other sections thereof regulating other matters relating to the safety of operation and equipment and standards of equipment and qualifications of drivers, engaged and employed in interstate commerce.

10. That the plaintiff, Barnwell Bros., Inc., is now, and was for a number of years prior to the passage of such Act

of South Carolina, engaged in the transportation of property in interstate commerce as a common carrier; that it offers by its own facilities or through connecting agencies door to door delivery and daily direct service in the District of Columbia, Georgia, Maryland, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Virginia, and other States, and has branch offices and terminals at Atlanta, Ga., Baltimore, Md., Charlotte, N. C., Cumberland, Md., Greenville, S. C., Newark, N. J., New York City, Philadelphia, Pa., Shelby, N. C., and Washington, D. C.

That the plaintiff, Poole Transportation, Inc., is now, and was for a number of years prior to the passage of such Act of South Carolina, engaged in the transportation of [fol. 10] property in interstate commerce as a common carrier, that it offers door to door delivery and daily direct service into, from, within, and across the State of South Carolina, from and to the States of Delaware, District of Columbia, Georgia, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Virginia and other States, and has traffic agents at Greenville, S. C., Atlanta, Ga., Baltimore, Md., Burlington, N. C., Chester, Pa., Richmond, Va., Charlotte, N. C., Paterson, N. J., and Kings Mt., N. C.

That the plaintiff, Horton Motor Lines, Inc., is now and was for a number of years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a common and contract carrier; that it offers door to door delivery and daily direct service in the District of Columbia, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Virginia, and other States, as a direct and connecting carrier for the transportation of property into, from and across the State of South Carolina, and has warehouses and terminals at Baltimore, Md., Burlington, N. C., Charlotte, N. C., New York City, Philadelphia, Pa., Richmond, Va., Washington, D. C., Wilkes-Barre, Pa., Cumberland, Md., Hickory, N. C., Greensboro, N. C., and Pittsburgh, Pa.

That the plaintiff, National Convoy & Trucking Co., is now and was for a number of years prior to the passage of such act of South Carolina, engaged in the transportation of property in interstate commerce as a common and contract carrier, offering door to door delivery and daily direct service in Georgia, North Carolina, South Carolina, Tennessee, Alabama, and other States, with traffic agents at

Atlanta, Ga., Chattanooga, Tenn., Greenville, S. C., High Point, N. C., Knoxville, Tenn., Spartanburg, S. C., Winston-Salem, N. C., and Birmingham, Ala.

That the plaintiff, Carolina Transfer & Storage Co., is now, and was for many years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a contract and irregular common carrier; that it has specialized in the movement of household furniture and goods in interstate commerce, which is an indispensable service and function of such interstate commerce; that it offers such service among all the several states of the United States, but that 35% of its total traffic moves into, from or across the State of South Carolina.

That the plaintiff, Dewey D. Maner, trading as Maner Transfer Company, of Rome, Georgia, is now, and was for many years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a common carrier; that he offers door to door delivery and daily direct service in Georgia, North Carolina, South Carolina, Tennessee, Alabama, Virginia, Maryland, Pennsylvania, New York, and other States, with terminals at Baltimore, Md., Philadelphia, Pa., New York City, Chattanooga, Tenn., Atlanta, Ga., Birmingham, Ala., and Rome, Ga.

That the plaintiff, Akers & Hudson Motor Lines, Inc. is now and was for many years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a contract carrier, that it offers door to door delivery and daily direct service in the States of Connecticut, Georgia, Maryland, Massachusetts, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, and other States, with traffic agents at Gastonia, N. C., Baltimore, Md., Newark, N. J., New York City, Reading, Pa., South River, N. J., Trenton, N. J., and Chester, Pa.

That all of the foregoing plaintiffs are now complying with, and at all times have been willing to comply with, and in the future will continue to comply with, all valid laws and [fol. 11] regulations of the United States and of the State of South Carolina, and its several administrative bodies, applicable to their respective operations; that each of them was in bona fide operation in the capacity alleged on June

1, 1935, and on July 1, 1935, and have complied with all the requirements and provisions of the Motor Carrier Act, and are now lawfully operating under such Act and under the jurisdiction of the Interstate Commerce Commission; that such plaintiffs are charged by the Motor Carrier Act with the duty of providing continuous, adequate, economical and efficient service to the communities and persons served by them, but that the performance of such duty requires the employment of equipment of reasonable size and weight, and such equipment as may not be subjected to the limitations of such Act of South Carolina; that such plaintiffs are by said Motor Carrier Act forbidden to cause any undue or unreasonable preference or advantage to any particular person, port, gateway, locality or description of traffic in any respect whatsoever, or to subject any particular person, port, gateway, locality or description of traffic to any unjust discrimination, or any undue or unreasonable prejudice or disadvantage in any respect whatsoever; but that, if denied the use of equipment of reasonable size and weights, the plaintiffs herein, and other carriers engaged in interstate commerce, will be compelled to make, give, and cause unreasonable preferences and advantages to particular persons, ports, and localities, and will be compelled to subject particular persons, ports, and localities served by the natural channels of interstate commerce into, from and across the State of South Carolina, to unjust discriminations, disadvantages, and undue and unreasonable prejudices.

That the result and effect of the enforcement of such Act of South Carolina will be to substantially increase the cost of and time of transportation by such plaintiffs, and will thereby substantially increase the costs of such transportation to the public served by them, and will substantially affect and increase the price of goods moving in interstate commerce to the public purchasing such goods; that it has been and will be necessary that such plaintiffs divert and re-direct their routes of transportation to avoid the obstruction created by such Act, since the natural channels through which flow the normal interstate traffic, and through which, in the absence of such Act and its enforcement, it would continue to flow, have been obstructed, and such flow has been and will be in greater measure diverted to other and unnatural interstate channels; that the quantity

of goods moving in such interstate commerce has been and will continue to be substantially decreased; that channels through which the normal interstate flow occurs have been so obstructed and will continue to be so obstructed if such Act is enforced, that such plaintiffs and other interstate motor carriers will be unable to perform the necessary and indispensable services and functions of interstate commerce.

That the plaintiffs, Merchants Fertilizer Company, and Planter's Fertilizer & Phosphate Company are and were for many years prior to the passage of such South Carolina Act engaged in the manufacture and preparation of large quantities of fertilizers and agricultural chemicals, serving extensive agricultural communities with essential fertilizer needs in Georgia, South Carolina, North Carolina, Florida, and other States; that economy and efficiency of service has required and now requires that delivery from point of manufacture to the communities and persons served be accomplished by motor transportation employing equipment of reasonable weights and sizes, but that such service could [fol. 12] not have been, and cannot be effected with equipment unreasonably limited in accordance with such provisions of said South Carolina Act.

That the plaintiff, South Carolina Produce Association, Inc., is, and was for many years prior to the passage of such South Carolina Act, a profit-making co-operative marketing association, incorporated by the State of South Carolina, in accordance with the Federal and State co-operative marketing acts; that it has some 200 members who are large and extensive producers of fresh vegetables and farm products in the State of South Carolina, that the Association ships 75% of such produce into interstate commerce which must move across certain trunk highways of the State of South Carolina in order to reach the natural markets of the Association in the urban and metropolitan centers of the North, Northeast and Middle West; that the Association furnishes to the peoples of these sections of the United States an indispensable delivery service of fresh vegetable foods from field to market; that practically all of such commerce moves, and because of the exigencies of time and cost of transportation, and necessity for refrigeration, must move, by motor carriage over the highways of South Carolina into connecting highways of other States;

that no other form of transportation is able to perform such indispensable service and function of interstate commerce either efficiently or adequately; that the necessity for refrigeration and economy of ultimate cost to the consumer requires that the motor equipment carrying such commerce exceed the gross limit allowed by such South Carolina Act; that the enforcement of the South Carolina Act will destroy the plaintiff's business by rendering it impossible to compete with its seasonal competitors in other sections of the United States, and will prevent the Association from serving its natural markets with fresh farm produce when it has no competition because of differences in harvest time.

That the plaintiffs, Sarah A. Geraty, John W. Geraty and Charles W. Geraty, trading as William C. Geraty Company, are large and extensive producers of fresh vegetables and farm products in the State of South Carolina; that such produce is shipped by motor carriage on the highways of South Carolina in interstate commerce; that such Act of South Carolina, its enforcement, and threatened enforcement, has tended to destroy their business and prevent them from contributing to the indispensable and necessary services and functions of interstate commerce in the manner above alleged as to the plaintiff, South Carolina Produce Association, Inc.

That the enforcement of such South Carolina Act will result in irreparable dam-ge to the business and services of such plaintiffs, the Planter's Fertilizer & Phosphate Company, Merchant's Fertilizer Company, South Carolina Produce Association, and William C. Geraty Company; will seriously curtail the volume of their business, will add to the cost of their products and substantially increase the price to the consumer; will lengthen the time and seriously impair the efficiency of their delivery service; will result in unjust and unreasonable discrimination, disadvantage, and prejudice against them and in favor of their competitors in other sections of the United States.

11. That each of the plaintiffs hereto has made large investments of money, property and effort in the respective businesses in which they are engaged as alleged heretofore; that the necessary effect of the enforcement of the South

[fol. 13] Carolina Act will be to curtail the business of each of the plaintiffs, damage or destroy their investments in an amount, and reduce their lawful profits, in an amount, greatly in excess of One Thousand ($1,000.00) Dollars for each month that they are thus unlawfully prevented from a reasonable use of the highways of the State of South Carolina.

12. That the plaintiffs hereto are but a numbered few of numerous carriers, manufacturers, producers, and shippers who perform services and engage in business in the stream of interstate commerce that flows through the aforesaid natural channels of trade into, from and across the State of South Carolina and that the necessary effect of the enforcement of such Act of South Carolina has been, and will be, to damage them and discriminate against them in like manner as the plaintiffs have alleged above as to themselves.

13. That the plaintiffs hereto are without adequate remedy at law, and must seek relief from such unlawful interference and must attempt to avoid such irreparable damage in a Court of Equity.

IV

To the end that the plaintiffs may have that relief which they can obtain only in a Court of Equity, they hereby pray:

That writ of subpœna issue out of and under the seal of this Court directed to each and all of the defendants hereto, and that duplicate writs be issued against such defendants as are alleged herein to be residents of the Western District of South Carolina, directed to the Marshal of said District, in accordance with Section 52 of the Judicial Code;

That it be adjudged and decreed that Sections 3 and 4 of the Act of South Carolina, 1933, No. 259 (38 Stats. 340) are in violation of the 14th Amendment to the Constitution of the United States, in that they are unreasonable, arbitrary, and capricious, and that they have no real and substantial relation to the objects sought to be obtained by such Act; that Sections 3 and 4, 5, 6 and 7 of such South Carolina Act, and such other sections thereof relating to the safety of operation and equipment and standards of

equipment, and qualifications of drivers engaged and employed in interstate commerce, are void and of no effect as to interstate commerce and the instrumentalities of interstate commerce, as they have been superseded by the Motor Carrier Act, 1935, and are in violation of Section 8, Article 1 of the Constitution of the United States, as they constitute a direct and substantial burden on interstate commerce, and a direct and substantial interference with the declared objects and purposes of the Motor Carrier Act, 1935.

Plaintiffs further pray that upon final hearing herein a permanent injunction may be granted enjoining said defendants, their representatives, officers, deputies, agents and employees, and all persons acting or attempting to act under or by virtue of their authority, direction or control, and any person and every person acting or attempting to act under or by virtue of the authority, of said Act of South Carolina, from in any way enforcing the said provisions of such Act against the plaintiffs hereto, their [fol. 14] agents, servants, or employees, while engaged in interstate commerce, from bringing or prosecuting any suit, action, or proceedings, criminal or civil, to enforce the penalties provided in said Act, or to compel compliance with such Act, or from doing any act or in any way interfering with the rights of the plaintiffs to carry on their businesses in interstate commerce free from the invalid requirements of such Act.

That plaintiffs may have such other and further relief as the exigencies of the case may require and to the Court may seem meet and proper.

Dated this, the 11th day of August, 1936.

By (Signed) S. King Funkhouser, J. Ninian Beall, Frank Coleman, L. Mendel Rivers, Counsel for Plaintiffs.

(Complaint verified.)

[fol. 15] IN UNITED STATES DISTRICT COURT

[Title omitted]

MOTION TO DISMISS—Filed September 19, 1936

Now come the defendants and move the Court to dismiss the bill of complaint upon the following grounds:

1. The bill of complaint fails to state a cause of action in equity entitling the plaintiffs to the relief prayed for therein.

2. There is no averment of facts sufficient to show a violation of any of the sections of the Constitution of the United States relied upon in the complaint or to show an invasion of any constitutional right of plaintiffs.

3. The allegations in the bill of violation of the Fourteenth Amendment to the Constitution of the United States fail to disclose any unreasonable, arbitrary or capricious interference with the rights of plaintiffs to use the highways of the State of South Carolina.

4. The respects in which the Act is alleged to violate the Fourteenth Amendment are within the police power of the State of South Carolina and the State has found as a fact and declared by its legislation in said Motor Carrier Act [fol. 16] of 1933 that the standards of weight, height, width and length prescribed by said Act are necessary to achieve economy in highway cost and permit its highways to be used freely and safely by the traveling public, and that the operation of trailers on any highway in the State endangers the safety and lives of the traveling public.

These limitations and prohibitions are manifestly subjects within the broad range of legislative discretion and it is not within the competency of the courts to set aside such exercise of police power of a State because of dispute of the facts so found by the legislature.

5. The provisions of the South Carolina Motor Carrier Act of 1933 which are alleged by the bill to violate the Fourteenth Amendment to the Constitution of the United States are sustained as a valid and reasonable exercise of the police power of the State, by facts of which there is common knowledge and of which the Court will take judi-

cial notice. The allegations of the bill seeking to deny or controvert such facts are insufficient to warrant the Court in setting aside such valid exercise of the police power of the State.

6. The averments of fact, if any, contained in the bill to sustain the charge of violation of the Fourteenth Amendment and a violation of Section 8 of Article I of the Constitution have been advanced from time to time and the questions are foreclosed by the decisions of the Supreme Court of the United States. The Supreme Court of the United States and the Supreme Court of South Carolina, on identical or like averments of fact, in a suit involving the constitutionality of the Motor Carrier Act of 1933 (State v. Jno. P. Nutt Co., 185 S. E. 25, certiorari denied, 56 S. Ct. Rep. 668) held the plaintiff not entitled to proof of such allegations, upon the ground that said questions had been foreclosed by the decisions of courts of both per-
[fol. 17] suasive and controlling authority.

7. The averments in Paragraph 8 of the bill relying upon the Federal Highway Act do not state a cause of action for that it has been held as matter of law by the Supreme Court of the United States and the Supreme Court of South Carolina that the police power of a state concerning its highways has not been impaired by the federal highway aid statutes. This was conclusively so held as matter of law by the Supreme Court of the United States in the case of Morris v. Duby, 274 U. S. 135, and by the Supreme Court of South Carolina, certiorari denied by the Supreme Court of the United States, as to the South Carolina Act of 1933 regulating motor carriers, in the case of "State v. Jno. P. Nutt Co.," 185 S. E. 25, certiorari denied, 56 S. Ct. Rep. 668.

8. The averments in Paragraph 9 that the Act of Congress known as the Motor Carrier Act of 1935 has entirely and completely superseded Sections 3, 4, 5, 6, and 7 of the Act of South Carolina, in so far as they apply to motor carriers engaged in interstate commerce, are insufficient in law in that the Act of Congress relied upon shows upon its face that the federal government has not occupied the field.

9. The averments in Paragraph 9 that the Act of Congress known as the Motor Carrier Act of 1935 has entirely and completely superseded Sections 3, 4, 5, 6, and 7 of the

Act of South Carolina, in so far as they apply to motor carriers engaged in interstate commerce, are insufficient in law in that for an Act of Congress to regulate the size and weight of motor vehicles to be employed upon the highways of a state is beyond the power of Congress under the Commerce Clause and in violation of the Tenth Amendment to the Constitution of the United States.

[fol. 18]. 10. In the event the foregoing motion to dismiss the whole complaint should be overruled, defendants further move, in the alternative, to dismiss paragraphs 4, 5, and 6 thereof, on grounds 3, 4, 5 and 6 of this motion set out above as reasons for dismissal of the whole complaint.

11. Defendants further move in the alternative, in the event the motion to dismiss the whole complaint be overruled, to dismiss paragraphs 7 and 8 thereof, on ground 7 set out above as reason for dismissal of the whole complaint.

12. Defendants further move in the alternative, in the event the motion to dismiss the whole complaint be overruled, to dismiss paragraphs 9 and 10 thereof, on grounds numbered 8 and 9 set out above as reasons for dismissal of the whole complaint.

John M. Daniel, Attorney General; J. Ivey Humphrey, Assistant Attorney General; M. J. Hough, Assistant Attorney General; Blease & Griffith, Counsel for Defendants.

[fol. 19] IN UNITED STATES DISTRICT COURT

[Title omitted]

MEMORANDUM ON MOTION TO DISMISS BILL—Filed October 24, 1936

Plainly the essentials for Federal jurisdiction are present. Decision of the case involves both laws and Constitution of the United States. A special statute of Congress regulating Interstate Commerce will have to be construed in deciding the case. In addition to the constitutional question involved, diversity of citizenship is present. Plainly the amount involved exceeds Three Thousand Dollars.

The Bill of Complaint seeks a permanent injunction against two South Carolina Administrative Bodies, Highway Commission and Public Service Commission. The complaint is directed at an Act of the Legislature of South Carolina approved April 28, 1933, 38 Statutes, 340, entitled "An Act to Regulate and Limit the Use of The Public Highways in the State by Motor Trucks, Semi-trailers Trucks, semi-trailers, and Trailers, to Enlarge the Powers of the State Highway Department and Other Bodies Having Like Jurisdiction in Incorporated Cities and Towns in Respect Thereof; and to Provide for the Enforcement of this Act and to Prescribe for the Violation Thereof and Exempting Certain of Such Motor Trucks, Semi-trailer Motor Trucks, Semi-trailers and Trailers from the Provisions Hereof, or Certain of Such Provisions, and to Repeal All Laws Inconsistent with This Act." Sections 3 and 4 of the Act are summarized in the Bill as follows:

"That Section 3 of such Act provides that *'no person shall use or operate any trailer, as defined in this Act, on any highway.'* Section 2 of such Act defines a 'trailer' as *'any vehicle designed to be drawn by a motor truck, but supported wholly upon its own wheels, and intended for the carriage of freight or merchandise.'*

"That Section 4 of such Act provides that *'No person shall operate on any highway any motor truck, or semi-trailer whose gross weight, including load shall exceed* 20,000 *pounds.'* Section 2 of such Act defines a 'semi-trailer motor truck' as *'any motor propelled truck, not operated or driven on fixed rails or tracks, designed to draw, and to support the front end of a semi-trailer. The tractor (or motor propelled truck), together with the semi-trailer shall be considered one unit, and the words 'semi-trailer motor truck' as used in this Act* shall mean and embrace such entire unit."

[fol. 20] It is alleged that the enforcement of these Sections will constitute an unreasonable, arbitrary and capricious interference with the rights of the plaintiffs to use the highways in a reasonable manner and for a lawful purpose, and that such enforcement will be in violation of the 14th Amendment to the Constitution of the United States. It is further alleged, paragraph 7 of the Bill, that the provisions of this Act when enforced will act as a direct and

substantial burden on Interstate Commerce. That, therefore, this Act is violative of the constitutional provisions placing the power of regulating Interstate Commerce with the National Congress. Paragraph 8 of the Bill alleges that this Act is in violation with certain provisions of the original Federal Highway Act, under the terms of which the Federal Government has made large contributions to the construction of the highway systems in the United States and for the purpose of national defense.

In addition to the foregoing attacks on the South Carolina Statute, which are similar to attacks made on this and other State Statutes in many previous cases, a new attack is made in this Bill. This grows out of the passage by Congress of a Statute known as the "Motor Carrier Act of 1935". So far as we have been able to ascertain, this new attack has never been ruled upon by any Federal Court.

We, therefore, divide our discussion of the Motion to Dismiss into two major headings; the first involving all of the attacks on the Constitutionality of the South Carolina Statute which have been before the Courts a number of times; and the second, the attack on the Constitutionality of the section based upon the contention that Congress has by the "Motor Carrier Act of 1935" legislated upon the same matters and that, therefore, the State Act must yield to the Federal Act.

The Motion to Dismiss will, in our opinion, have to be granted as to the grounds embraced in the first major division. To state the matter very briefly, but perhaps at as great length as is necessary, we take the view that the allegations of the Bill as to those Constitutional questions are so similar to the allegations in many cases which have been decided by the United States Supreme Court that we are safe in concluding that the decisions in these previous cases control this case absolutely. Such cases as Morris v. Duby, 274 U. S. 140; Sproles vs. Binford, 286 U. S. 374; and Continental Baking Co. vs. Woodring, 286 U. S. 352, point the way to a correct decision of this case on the grounds referred to so definitely that we do not hesitate to grant the Motion to Dismiss on these grounds. In addition to all that, the United States Supreme Court denied certiorari in the case of State Ex Rel. Daniel, Attorney General, vs. John P. Nutt Company, Inc., et al. 297 U. S. 724; 185 S. E. 25. This was a decision of the South Caro-

lina Supreme Court involving the identical statute complained of here. Certainly, therefore, the Supreme Court has taken the view that so far as these constitutional attacks on the statute are concerned they are controlled by the previous decisions of that Court.

[fol. 21] Argument is next made that under the limitations upon the doctrine of "stare decisis" which the Supreme Court of the United States has recognized in constitutional cases depending for decision upon the actual factual application of the statute to greatly changed conditions, a situation is presented here where the Court should take the testimony and rule upon the constitutional question in the light of the changed situation since the last decision of the Supreme Court.

We recognize the force and effect of the proposition so earnestly advanced by counsel for the plaintiffs. We go further and say that such a situation might be alleged where a Court taking judicial knowledge of these major changes in the national life, to which the Court cannot shut its eyes without stultifying itself, and anticipating the probable factual showing, refuse to dismiss a bill involving the same constitutional questions dealt with in the previous decisions. But even construing the doctrine of "Stare decisis" as being limited by this more or less well established practice, we do not think that the instant case calls for the application of that practice.

Of course, the transportation of this country is moving more and more in motor vehicles. No one would doubt that the complainants could probably show an enormous increase in motor transportation in the last few years, but we have serious doubts that any revolutionary change has taken place with respect to the Interstate motor transportation through South Carolina since the Supreme Court of the United States denied certiorari in the Daniels vs. Nutt case. Attention is invited to the fact that this denial of certiorari was as late as March 30, 1936.

But while willing to dismiss the Bill so far as these contentions are concerned without taking testimony on the allegations of the Bill, we think that a new question is presented by paragraph 9 of the Bill. This paragraph as indicated above, makes an attack on the Statute of South Carolina on the ground that it conflicts with the "Motor Carrier Act of Congress 1935". In short, it is alleged that

Congress by the "Motor Carrier Act of 1935" has exercised the power given it by the Federal Constitution to regulate Interstate Commerce and that the Statute of South Carolina attempting to control the same subject matter must fall.

No one will contend that this abstract proposition of constitutional law is not sound. The ruling on motion to dismiss must be based upon the construction of the Statute rather than the decision of the final constitutional question of whether or not the power of Congress to regulate Interstate Commerce will here overrule the police power of a State to regulate travel over its own highways. The Supreme Court of the United States in such cases as Sproles v. Binford et al has certainly shown great deference to the police power of a State with respect to the regulation of all travel over the highways within the State, but all of these questions were decided by the Supreme Court of the United States before the "Motor Carrier Act of 1935" was passed and never in any of these cases, therefore, was the question [fol. 22] presented or decided as to where the power of Congress, when exercised by a definite Statute, ends in the control of Interstate Commerce, and the police power of the State, exercised for the safety of its citizens and preservation of its own highways, begins. Plainly, the decision of this delicate question of constitutional law can much better be made after the taking of testimony and the presentation of the factual situation as it actually exists, and consideration thereof by the Court.

But conceding all of this, and conceding that the constitutional rights of a citizen can best be decided by an Appellate Court in the light of full factual revelation, and conceding that this doctrine has been so recognized by the Supreme Court that it has developed a separate and distinct standard with respect to factual review in constitutional law cases from that used in cases involving no constitutional point,* the State of South Carolina still contends that here there is no need for taking the testimony because the statute itself (Motor Carrier Act 1935) shows on its very face that Congress has not attempted to regulate the size and weight of

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*"The Committee appointed on uniform Rules for Practice in Actions at Law and Suits in Equity in Federal Courts have confessedly recognized that this distinction exists.

the vehicles (trailers included) to be used in such Interstate Commerce.

Manifestly, if the Act does not purport to give to the Interstate Commerce Commission the power to regulate the same matters which are regulated by the South Carolina Act, already sustained as to its constitutionality on other grounds, then no occasion will exist for a decision of the delicate question of constitutional law above outlined. So, we come to the question which must control our decision on the motion to dismiss, namely, does the "Motor Carrier Act" when reasonably construed attempt to regulate the same matters which are regulated by Sections 3 and 4 of the South Carolina Act of 1933? The problem is one, therefore, of statutory construction.

We take the following principles to be involved:

I

The Supreme Court has since the day of Gibbons v. Ogden construed the constitutional provisions giving the Federal Congress control over Interstate Commerce most liberally in favor of the control by the central government of every activity which directly affects Interstate Commerce. We think the continued growth of American business depends upon the continued adherence to this principle.

[fol. 23]

II

Whenever a State has enacted a Statute which upon full investigation of the factual situation compels the conclusion that the Statute will substantially affect and constitute a direct burden upon Interstate Commerce the State Statute cannot stand in the face of Federal regulation of the same subject matter.

III

When Congress passes a Statute and the Courts are called upon to construe it, it must be construed in the light of the situation existing at the time the Statute was passed.

IV

That in interpreting a Statute dealing with subject matter closely akin to the subject matter of another Statute which has been frequently before the Supreme Court, the decisions of the Supreme Court on questions dealing with kindred

subject matter should point the way to the decision of a case involving the new Statute, therefore, we think the decisions of the Supreme Court dealing with the Transportation Act 1920 should guide us in the interpretation of the "Motor Carrier Act of 1935". In the one, Congress gave the Interstate Commerce Commission very large authority as to minute details in controlling the transportation by railroads; in the other, Congress has after years of discussion finally enacted a Statute which gives to the same Commission large powers over Interstate transportation by motor carriers.

On first study of the "Motor Carrier Act of 1935", we were impresed with the fact that there had been a studied avoidance of the use of the words "size" and "weight" in the Act. When some of the committee discussions and reports were argued to this Court, it seemed that this studied avoidance was the result of the decision of Sproles vs. Binford and Baking Company vs. Woodring. Indeed some of the Members of Congress and Senators supporting the legislation seemed to have very serious doubts as to whether or not the Congress could, in the light of Sproles vs. Binford and Baking Company vs. Woodring, regulate the size and weight of the vehicles used in Interstate Commerce and over the roads of particular states. In addition to this, the insertion of Section 225 in the Act as finally passed lends strong support to the contention that Congress did not intend to give the Interstate Commerce Commission power to regulate the size of trucks and trailers to be actually used. It is contended that all of this was done because Congress had serious doubts about its own authority to deal with matters which the Supreme Court had already said were within the police power of a state. If Congress, therefore, thinking the limitation existed, studiously avoided control over the matter of size and weight, then how can it be said that the Act gives the Interstate Commerce Commission power over these two subject matters? This argument, however, is to our mind more of an academic argument than one which should control our decision. A broad principle of statutory construction we think should control [fol. 24] us here, namely, that when Congress asserts its power to regulate some phase of Interstate Commerce and vests this power in a Federal regulatory body, then it will be held that Congress meant to give that body full power

over all phases of the subject matter which are necessary to the full and complete exercise of the Federal power over that phase of Interstate Commerce. Succinctly, if the Interstate Commerce Commission is to perform all of the duties and functions which are put upon it by this new Act, it is hard to escape the conclusion that it will be necessary for the Commission to have power to regulate the size of the motor vehicles, trucks and trailers used by the carrier under their control.

Now, as to the impending conflict between Federal regulation of Interstate Commerce and the inherent police power of a State, that is a delicate, difficult and important question of constitutional law which must be later decided. What we now decide is that merely on the pleadings, without enlight-ment as to the factual situation actually existing in the country today, we are unwilling to say that the plain and definite meaning of the "Motor Carrier Act of 1935" was to exclude from the powers given to the Interstate Commerce Commission all power to regulate the size and weight of motor vehicles used in Interstate Commerce.

We, therefore, think that we would be abusing our discretion and committing error of law to dismiss this Bill as to the contentions raised by paragraph 9 thereof without affording the complainants an opportunity to offer testimony thereabout. We cannot escape the conclusion that this Court, after hearing testimony similar to that presented to the committees of Congress when the Statute was being discussed can much more correctly construe the intention of Congress than we could merely upon considering the Statute itself. Dictionary definitions of terms are frequently misleading, particularly when those terms are used in the light of factual situations recently developed and having a very definite meaning by reason of the facts out of which the legislation grows. This principle has been recognized by the Supreme Court in interpreting the Transportation Act of 1920. This particular Court was faced with a similar problem in the case of P. & N. vs. Interstate Commerce Commission et al 286 U. S. 299. There the dictionary meaning of the words in a phrase had to yield to the meaning which the phrase took on when considered in the light of the factual situation in the light of which Congress passed the Statute. To sum up our position, therefore, we think.

I

An Order should be granted dismissing the Bill as being without merit as a matter of law as to all of the allegations in paragraphs 6, 7 and 8 thereof; that these questions have been adjudicated so recently by the Supreme Court of the United States that there is no occasion to hear testimony thereon.

[fol. 25] II

That, however, as to the allegations in paragraph 9 with respect to the interpretation and force and effect of the Motor Carrier Act of 1935" a new question is presented and that the complainants are entitled to introduce testimony thereon within the discretion of this Court. The Court is of the opinion that a correct ruling on these allegations can much better be had after the testimony has been heard than merely upon considering the allegations of the Bill and the words of the Statute itself.

III

That the questions thus presented will, as the Court now sees them, be substantially as follows:

1. Does the "Motor Carrier Act of 1935", when construed in the light of testimony offered, control and regulate the question of sizes and weights of the motor trucks and trailers used in Interstate Commerce? This will be a problem of statutory construction in the light of factual showing.

2. Should this Court decide that the Statute does not give the Interstate Commerce Commission power over this subject matter, the Bill would then be dismissed on its merits; should, however, the Court come to the conclusion that the Statute "Motor Carrier Act of 1935" does give the Interstate Commerce Commission control over the sizes and weights of the vehicles involved, then the Court would be compelled to address itself to the delicate, difficult and important question of constitutional law, namely, to decide which controls in the instant case—power of Congress over Interstate Commerce by reason of constitutional provision thereabout, or inherent power of a sovereign state. To decide this question will be difficult enough with a full factual showing before the Court. To risk a decision on pleadings

and rule in an abstract way, deciding the question more or less in vacuo, would, we think, be an absurdity. The importance of a complete factual showing in questions involving constitutional law has been adverted to time after time by the Supreme Court of the United States. Perhaps never before has the wisdom of taking testimony in such cases been more strongly stated than in the recent decision of N. C. & St. L. Ry. vs. Walters 55 Sup. Ct. Rep. 486, 294 U. S. 405. There the trial Judge heard the testimony in such case and ruled on it and the Supreme Court of the United States finally held that it was proper for him to do so, and pointed out that in such cases constitutional questions can best be decided when facts are fully developed. We are not called upon at the present time to deal with the interesting question so recently discussed in the St. Joseph stockyards case as to the weight attributed to findings when once made by regulatory bodies when such findings are reviewed by a Court, but the importance of the general subject of factual findings in deciding constitutional cases is made clear when the Supreme Court devotes so much time to pointing out the correct rule of appraising the factual findings when once made.

[fol. 26] Let the attorneys for the complainants submit a proposed Order refusing to dismiss the Bill as to the legal question raised by paragraph 9 of the Bill, and let the attorneys for the defendants submit a proposed Order dismissing the Bill with respect to the allegations of constitutionality and illegality of the Statute as set forth in paragraphs 6, 7 and 8 of the Bill.

(Signed) J. Lyles Glenn, United States District Judge.

October 22nd, 1936.

[fol. 27] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER GRANTING MOTION TO DISMISS BILL OF COMPLAINT IN CERTAIN PARTICULARS—Filed November 2, 1936

For the reasons stated in a brief memorandum Opinion of this Court dated October 22, 1936, and on motion of Hon. John M. Daniels, Attorney General of South Caro-

lina, and Messrs. Blease and Griffith, special counsel herein, it is

Ordered, Adjudged and Decreed that the motion to dismiss the bill of complaint herein be, and the same is hereby granted as to paragraphs 4, 5, 6, 7 and 8 of major paragraph 3 of the said bill of complaint. That this Order granting the motion to dismiss be, and the same is without prejudice to the plaintiffs to insist upon the contentions set forth in paragraph 9 and the other portions of said bill.

It is so Ordered.

J. Lyles Glenn, United States District Judge.

October 30, 1936, Rock Hill, South Carolina.

[fol. 28] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER OVERRULING MOTION TO DISMISS AS TO PARAGRAPH 9 OF BILL OF COMPLAINT—Filed November 2, 1936

This cause came on this day to be heard upon the Bill of Complaint filed herein, upon the motion of defendants to dismiss the Bill, upon the argument of counsel heretofore made and briefs in support thereof heretofore filed. Now, Therefore, upon due consideration of such pleadings and the argument and briefs of counsel, it is hereby Adjudged, Ordered and Decreed

That the motion to dismiss the Bill as to Paragraph 9 thereof be and the same is hereby overruled.

It is Further Ordered that the defendants be allowed 20 days from this date within which to Answer or otherwise plead.

J. Lyles Glenn, United States District Judge.

Oct. 30th, 1936.

[fol. 29] IN UNITED STATES DISTRICT COURT

[Title omitted]

MOTION FOR TEMPORARY INJUNCTION—Filed November 2, 1936

The plaintiffs herein now move the Court for a temporary injunction restraining and enjoining the defendants,

or any of them, during the pendancy of this action, from committing, doing or performing, or attempting to commit any of the acts described and set forth in the prayer of the Bill of Complaint in this cause, on the ground that the Motor Carrier Act, 1935, supercedes Sections 4, 5, 6 and 7 of the Act of the General Assembly of South Carolina, 1933, No. 259, approved April 28, 1933, (38 State. 340), for the following reasons:

1. By decree of this Court heretofore entered the defendants' motion to dismiss the Bill of Complaint has been overruled as to Paragraph 9 of the said Bill of Complaint, putting the defendants to answer, and entitling the plaintiffs to a trial on the merits as to the issues raised in said Paragraph 9.

2. That the plaintiffs are informed and verily believe that the defendants will on the 1st day of November, 1936, commence rigid state-wide enforcement of the provisions of such Act.

3. That such threatened enforcement of such Act, even though the period of enforcement be for only a short period of time, and only for a period between November 1, 1936, [fol. 30] and the date of final hearing and decision in this suit, will cause the plaintiffs herein immediately and irreparable injury, loss and damage for which they would have no adequate remedy at law.

S. King Funkhouser, J. Ninian Beall, Frank Coleman, L. Mendel Rivers, Counsel for Plaintiffs.

October 30, 1936.

[fol. 31] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER PERMITTING THE FILING OF MOTION FOR TEMPORARY INJUNCTION—Filed November 2, 1936

This day came the Plaintiffs, by counsel, and asked leave to file their written motion for Temporary Injunction, which leave is hereby granted and the same is hereby filed.

J. Lyles Glenn, United States District Judge.

Oct. 30, 1936.

[fol. 32] IN UNITED STATES DISTRICT COURT

[Title omitted]

MEMORANDUM OPINION ON MOTION FOR TEMPORARY INJUNCTION—Filed November 2, 1936

The plaintiffs above named filed their bill in this Court seeking a permanent injunction against the defendants. The defendants are State Officers who in various capacities are charged with the enforcement of laws regulating motor carriers for hire over the highways of South Carolina. The bill was filed on August 11, 1936, extension of time for answering was agreed upon pending the argument and decision of a motion to dismiss. As soon as possible this Court heard the motion to dismiss. After due consideration the motion to dismiss was granted in part and denied in part, the ruling of the Court being evidenced by a Memorandum Opinion dated October 22nd. An Order was signed and filed on October 30th carrying into effect the views stated in the Opinion. On the same day, after notice, plaintiffs' motion for a restraining order was heard. The Court allowed the plaintiffs to file an application for a restraining order or interlocutory injunction. On this motion for interlocutory injunction, for so it is in fact no matter by what name the desired order be called, was heard testimony taken and decision must now be made on this motion. The [fol. 33] enforcing agencies have declared their intention to begin enforcement of the statute complained of on Monday, November 2nd, and unless restrained by this Court such enforcement will become a reality and seriously injure the plaintiffs' businesses.

It is important to know that no such danger was imminent on August 11, 1936, when the bill was filed, but such danger has become imminent by reason of the threatened enforcement of the Act. Manifestly, with no interlocutory injunction sought in the original bill there was no occasion to even consider the application of Section 266 Judicial Code, Section 380, Title 28 U. S. C. A. and the convening of a Three Judge Court. But, now that an application for interlocutory injunction has been filed a serious question is presented as to whether or not this Court has jurisdiction to grant any Orders except those preliminary to the convening of a Three-Judge Court. If Section 380 applies,

the duties and powers of the individual Judge are very limited. See Stratton vs. St. L. & S. W. Rwy. Co. The State contends that although the bill has been dismissed as to a number of its paragraphs, there still remains in the bill contention based on a substantial claim of unconstitutionality, under the Federal Constitution, of the State Statute in question. Prima facie, therefore, it would seem that beyond question the case is one to which Section 380 applies and Three Judges must hear the application for interlocutory injunction.

The plaintiffs suggest, however, that this Court, composed of an individual Judge, hearing the motions has power to issue the injunction. It is contended that the situation is similar to that presented in Baird vs. Smith 12 Fed. Sup. page 964. Further authorities, consideration of which will [fol. 34] make plain the contentions in this regard, are Ex Parte Hobbs 280 U. S. 168 and the cases cited therein. We think, however, that as the real substance of the plaintiffs' attack on the South Carolina Statute still consists of a vigorous assertion of its unconstitutionality, under the Federal Constitution, that we cannot say that no serious Constitutional question is present. It is true that some of the cases dealing with a situation where State Statutes regulating transportation have been superseded by a Federal Statute based on Federal control of Interstate Commerce that the Courts have said that no serious Constitutional question was involved. Typical of this class of cases is C. R. I. P. R. R. vs. Elevator Co., 57 Law Ed. page 285. But in these cases there is practically a concession on the part of the State enforcing agencies that the Federal Statute is paramount to and overrides the State Statute, the two statutes controlling the same subject matter. No such concession is made here by the State enforcing agencies, on the contrary the State contends that even if the "Motor Carrier Act of 1935" attempts to control "size" and "weight" that nevertheless, the State Statute is still Constitutional as a valid exercise of inherent police power. Without going extensively into the matter, we point out that the factual situation wherein police power is exerted over travel on highways owned and built by the State is not the same thing as police power exerted over commerce moving over railroads owned and operated by private companies, as the State does not surrender its contentions about

the validity of the State Statute, neither do the plaintiffs yield one inch in their contention as to the unconstitutionality of the Statute. As we view the case, both on application for interlocutory injunction and for trial on its final merits, it is essentially a question involving the constitutionality of a State Statute.

To attempt to draw an Order sustainable under Ex Parte [fol. 35] Hobbs is but to substitute sophistry and verbiage for logic and substance. Indeed when Ex Parte Hobbs is read carefully, we find that the injunction there granted by the one Judge was based entirely upon his construction of certain provisions of a State Statute. Such a situation is not at all presented here in the instant case.

But, if it is plain that a single District Judge cannot grant an interlocutory injunction where Section 380 is applicable, it is nevertheless plain that it is frequently his duty to grant an injunctive order of a less permanent nature, commonly called a temporary restraining order. The cases dealing with Section 380 make it plain that he has authority to preserve the status until the Court of Three Judges can be physically convened, and the hearing on the application for interlocutory injunction be had. In many cases the failure to grant such a restraining order would make a subsequent issuance of an interlocutory injunction an academic victory of no practical value. Therefore, we come to the question of whether we think we should grant such a temporary restraining order while the Three Judge Court is being convened and until the application is heard.

Testimony was taken before me which satisfies me that this Court should grant such a temporary restraining order here. Without reviewing this testimony at great length, it is sufficient to say that shippers more than carriers would suffer irreparable injury if the enforcement of this Statute was not temporarily restrained. Two major industries of South Carolina, the textile industry in the Piedmont and the trucking industry in the coastal regions, would I am satisfied suffer immediate and irreparable injury if drastic enforcement of this Statute were commenced on Monday morning, November 2, 1936. Surely the preservation of [fol. 36] the present status of control until the application for interlocutory injunction can be heard by a Court of higher dignity will do no serious harm and is the course which in my judgment should be followed. This temporary

restraining order, of course, will be effective only until the application for interlocutory injunction is heard and a ruling made thereon.

(Signed) J. Lyles Glenn, United States District Judge.

October 31, 1936.

[fol. 37] In United States District Court

Temporary Restraining Order—Filed November 2, 1936

This cause coming on to be heard upon the Bill of Complaint filed herein, upon the motion of the defendants to dismiss the Bill, upon the decree of this Court sustaining said motion in part and overruling said motion in part, and upon the written motion of the Plaintiffs for a Temporary Injunction against the defendants on the ground that Sections 4, 5, 6 and 7 of the Act of the General Assembly of South Carolina, 1933, No. 259, approved April 28, 1933 (38 Stats. 340), are superseded by the Motor Carrier Act, 1935, and upon motion of the plaintiffs for a Temporary Restraining Order pending the hearing of such application for interlocutory Injunction, and all parties, both plaintiffs and defendants, having appeared by Counsel, and the Court having heard the pleadings, the evidence taken in open court and the arguments of counsel on this the 30th day of October, 1936, and it appearing to the Court therefrom:

1. That the defendants herein have threatened and intend to commence rigid enforcement of the South Carolina Act involved in this suit on the 1st day of November, 1936, and

2, That it is impossible for a hearing and decision on the motion for a Temporary Injunction to be had prior to said date, and

3. That such threatened enforcement will cause immediate and irreparable loss and damage to the plaintiffs herein before such hearing and decision can be had, and, it [fol. 38] appearing meet and proper so to do, it is hereby Ordered, Adjudged and Decreed

That the defendants hereto, their officers, agents, servants, employees, attorneys, and all persons acting or attempting to act under or by virtue of their authority,

direction or control, and any person and every person acting or attempting to act under or by virtue of the authority of said Act of South Carolina, be and they are hereby

Enjoined and Restrained, until the further order of this Court, from in any way enforcing Sections 4, 5, 6 and 7 of the Act of the General Assembly of South Carolina, 1933, No. 259, approved April 28, 1933, (38 Stats. 340), said sections regulating respectively the weight, height, width and length of motor-trucks operating on the highways of South Carolina, against all persons, their agents, servants or employees operating motor vehicles in interstate commerce, into, from or across the State of South Carolina under authority of the Motor Carrier Act of 1935, from bringing or prosecuting any suit, action or proceedings, criminal or civil, to enforce the penalties provided in said Act, or to compel the compliance with said Act, or from doing any act or in any way interfering with the rights of such persons, their agents, servants or employees to conduct such operations in interstate commerce free from the limitations of said sections of such Act.

Provided, However, that said injunction is contingent upon the plaintiffs giving security in the sum of Ten Thousand Dollars ($10,000) covering damages to be sustained by defendants by reason of said injunction, such security to be approved by this Court and filed with the Clerk within three days from this date.

It is Further Ordered and Decreed that this temporary restraining order be, and the same is hereby continued until a Three Judge Court can be convened and pass upon the application for interlocutory injunction herein sought. The Three Judge Court herein referred to will be convened by a separate Order in keeping with Section 380, Title 28, U. S. C. A.

(Signed) J. Lyles Glenn, United States District Judge.

October 31, 1936.

[fol. 39] IN UNITED STATES DISTRICT COURT

[Title omitted]

ANSWER—Filed November 7, 1936

Come now the defendants in the above-entitled cause and for answer to the bill of complaint herein say:

1. Defendants deny any knowledge or information sufficient to form a belief as to the allegations of paragraph 1 of the bill.

2. Defendants admit the allegations of paragraph 2 of the bill.

3. On information and belief defendants deny the allegations of paragraph 3 of the bill.

4. Defendants deny the allegations of paragraph 4 of the bill.

5. Answering paragraph 5 of the bill, defendants admit that the General Assembly of South Carolina in 1933 enacted its Act No. 259, approved April 28, 1933 (38 Stats. 340) entitled "An Act to Regulate and Limit the Use of the Public Highways in the State by Motor Trucks, Semitrailers, and Trailers, * * *", etc., commonly known as the Motor Carrier Act of 1933, to which Act reference is hereby made for a true and complete statement of the terms, provisions, and effect thereof. Except as herein admitted, defendants deny the allegations of said paragraph 5.

6. Answering paragraph 9 of the bill, defendants admit that the United States Congress in August, 1935, passed [fol. 40] an Act entitled the "Motor Carrier Act, 1935", and that said Act was approved by the President on August 9, 1935, to which Act reference is hereby made for a true and complete statement of the terms, provisions, and effect thereof. On information and belief defendants admit that the State of South Carolina has nominated, and the Interstate Commerce Commission has appointed, Joint Board representatives for the State of South Carolina. Defendants admit on information and belief that the Interstate Commerce Commission did on July 1, 1936, promulgate proposed safety regulations, but defendants aver that said regulations contain no provisions affecting or in any way dealing with the size and weights of trucks or trailers. Defendants admit that the South Carolina Public Service Commission has refused, and is continuing to refuse, to issue operating licenses for equipment not complying with the limitations prescribed by the South Carolina Motor Carrier Act of 1933. Defendants admit that the officers and agents of said Public Service Commission, their deputies

and employees, have arrested, prosecuted, and caused to be fined agents, servants, and employees of certain of the plaintiffs, and will continue to arrest, prosecute, and cause to be fined such agents, servants, and employees of plaintiffs and others for failure to have such licenses. Defendants admit that defendants, and those for whom they are by this bill alleged to be represented, and their officers, deputies, agents, and employees have been enforcing, are enforcing, and will continue to enforce the provisions of said South Carolina Motor Carrier Act of 1933. Except as herein expressly admitted, defendants deny each and every allegation of said paragraph 9 of the bill.

7. Answering the separate subparagraphs of paragraph 10 of the bill of complaint:

(1) Defendants deny any information sufficient to form a belief as to the allegations of subparagraphs (1), (2), [fol. 41] (3), (4), (5), (6), and (7).

(2) Defendants deny the allegations of subparagraphs (8) and (9).

(3) Defendants deny any knowledge or information sufficient to form a belief as to the allegation in subparagraph (10) that the Merchants Fertilizer Company and the Planter's Fertilizer & Phosphate Company are, and were for many years prior to the passage of the South Carolina Motor Carrier Act of 1933, engaged in the manufacture and preparation of fertilizer and agricultural chemicals for serving communities with fertilizers in the states referred to. Defendants deny the other allegations of subparagraph (10).

(4) Defendants deny any knowledge or information sufficient to form a belief as to the allegations in subparagraph (11) that the South Carolina Produce Association, Inc., is, and was for many years prior to the passage of the South Carolina Motor Carrier Act of 1933, a profit-making cooperative marketing association incorporated by the State of South Carolina in accordance with the Federal and State cooperative marketing acts; that it has some two hundred members who are producers of vegetables and farm products in the State of South Carolina; and that it ships 75 per cent of such produce into interstate commerce. Defendants deny the other allegations of subparagraph (11).

(5) Defendants deny any knowledge or information sufficient to form a belief as to the allegations of subparagraph (12) that Sarah A. Geraty, John W. Geraty, and Charles W. Geraty, trading as William C. Geraty Company, are large and extensive producers of farm products in South Carolina and that such produce is shipped by motor carriers on the highways of South Carolina in interstate commerce. Defendants deny the other allegations of subparagraph (12).

(6) Defendants deny the allegations of subparagraph (13).

[fol. 42] 8. Answering paragraph 11 of the bill, defendants deny any knowledge or information sufficient to form a belief as to the allegation that each of the plaintiffs has made large investments of money, property, and effort in their respective businesses. Defendants deny the other allegations of paragraph 11.

9. Defendants deny the allegations of paragraph 12 of the bill.

10. Defendants deny the allegations of paragraph 13 of the bill.

11. For a separate and distinct defense defendants allege that if contrary to its true intent and construction the Federal Motor Carrier Act of 1935 should be construed to supersede the provisions of the South Carolina Motor Carrier Act of 1933 regulating sizes and weights of motor vehicles engaged in interstate commerce upon the highways of the State of South Carolina, the Act as so construed is beyond the power of Congress under the Commerce Clause and in violation of the Tenth Amendment to the Constitution of the United States.

And now having fully answered, defendants deny that plaintiffs are entitled to the relief prayed for in the bill of complaint, or to any part thereof, or to any other relief against these defendants, and pray that the bill of complaint be dismissed with costs.

John M. Daniel, Attorney General; J. Ivey Humphrey, Assistant Attorney General; M. J. Hough, Assistant Attorney General; Blease & Griffith, Counsel for Defendants.

(Answer verified.)

[fol. 43] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER CONVENING THREE-JUDGE COURT—Filed November 13, 1936

On August 11, 1936 the complainants above named filed their Bill in this Court seeking a Permanent Injunction against the defendants. At that time threatened enforcement of the State Statute which the complainants contend is unconstitutional was not imminent. But, before the case could be called up for trial on its merits, the state agencies threatened to enforce the alleged unconstitutional Statute. The complainants then made motion for a Temporary Restraining Order, which this Court in its Memorandum Opinion of October 31, 1936, construed as being in substance a motion for Interlocutory Injunction. It appearing that by reason of this application for Interlocutory Injunction, the hearing should be had before a specially constituted Court of Three Judges as provided for by the terms of Section 380, Title 28 U. S. C. A., Section 266 United States Judicial Code, now, therefore, it is

Ordered and Adjudged that the Honorable John J. Parker, United States Circuit Judge, and the Honorable Elliott Northcott, United States Circuit Judge be, and they are hereby called to the assistance of the undersigned District Judge to hear and determine the application for Interlocutory Injunction and other matters arising in the above-entitled suit in Equity. That the Court as thus constituted be the Court to hear and determine the matters involved in this suit.

J. Lyles Glenn, United States District Judge.

November 12, 1936.

[fol. 44] IN UNITED STATES DISTRICT COURT

[Title omitted]

PETITION OF INTERSTATE COMMERCE COMMISSION TO INTERVENE AS A PLAINTIFF—Filed November 17, 1936

To the Honorable Judges of the Above Named Court:

Now comes the Interstate Commerce Commission and petitions the court for leave to intervene in the above-

entitled cause as a party plaintiff and prays that upon granting of such leave this petition be permitted to stand as its bill in intervention, and as grounds for its intervention it respectfully shows:

1. That it is an administrative tribunal duly constituted and organized under the laws of the United States with power to sue and be sued.

2. That under the pleadings and proceedings heretofore had in the cause there are placed in litigation questions: (1) as to whether Congress by the enactment of "The Motor Carrier Act, 1935" (Act of August 9, 1935, 49 Stat. L. 543) has purported to so enter the field of regulation of interstate transportation by motor carriers as to exclude the power of the State of South Carolina lawfully to enact and enforce a statute approved April 28, 1933 (38 Stat. 340), so far as the same restricts as to weight, height, size, safety and qualifications of drivers, the use of motor vehicles operating in interstate commerce on the highways [fol. 45] of the state, and (2) if such Federal legislation purports to so enter the field of regulation of interstate transportation by motor carriers, whether such legislation is constitutionally valid.

3. That your petitioner is interested in the matters in litigation by reason of the fact that it is the agency of the Federal government charged with primary responsibility for the administration and enforcement of the provisions of the said Motor Carrier Act, 1935, and that as such it should be permitted to appear as a party plaintiff in support and defense of the powers lawfully committed to it, which are challenged in the pleadings herein filed in behalf of the defendants.

4. That the plaintiff adopts the allegations of the bill of complaint contained in that part of sub-section 9 of Section III from the beginning thereof up to the semi-colon preceding the last line on page 10 of the bill of complaint, and such parts of sub-section 9 thereafter as allege that the defendants have undertaken to enforce and, unless restrained, will continue to enforce the provisions of the said statute of South Carolina.

5. That the enforcement of such provisions of the South Carolina statute, unless restrained, will interfere with, and

prevent the exercise by your petitioner of an exclusive function of the Federal Government lawfully committed to it by a statute of the United States.

6. That this application for intervention is made with the consent of the plaintiffs in this cause.

7. That the petitioner joins in the prayer for relief as set out in the bill of complaint herein.

Interstate Commerce Commission, by Edward M. Reidy, Assistant Chief Counsel. Thomas M. Ross, Attorney. Daniel W. Knowlton, Chief Counsel, of Counsel.

(Petition verified.)

[fol. 46] IN UNITED STATES DISTRICT COURT

[Title omitted]

MOTION TO DISMISS COMPLAINT—Filed November 24, 1936

Now come the defendants and move the Court to dismiss the bill of complaint and paragraph 9 of Section III thereof upon the following grounds:

1. The bill of complaint and paragraph 9 of Section III thereof fail to state a cause of action in Equity entitling the plaintiffs to the relief prayed.

2. The bill of complaint and paragraph 9 of Section III thereof should be stricken as a matter of law, in that they state as a cause of action that Sections 3, 4, 5, 6 and 7 of the South Carolina Act approved April 28, 1933, regulating and limiting the size and weight of motor trucks and semi-trailers on South Carolina highways, have been entirely and completely superseded by the Act of Congress known as "Motor Carrier Act, 1935", whereas said Act of Congress shows upon its face that Congress has not regulated the size and weight of such motor carriers.

John M. Daniel, Attorney General; J. Ivey Humphrey, Assistant Attorney General; M. J. Hough, Assistant Attorney General; Blease & Griffith, Counsel for Defendants.

[fol. 47] IN UNITED STATES DISTRICT COURT

[Title omitted]

PETITION OF RECEIVERS OF SEABOARD AIR LINE RAILWAY TO INTERVENE AS DEFENDANTS—Filed November 24, 1936

To the Honorable Judges of the Above-Named Court:

Now come Legh R. Powell, Jr., and Henry W. Anderson, as Receivers of the properties and assets of Seaboard Air Line Railway Company, and petition the Court for leave to intervene in the above-entitled cause as parties defendant and pray that upon the granting of such leave this petition be permitted to stand as their bill of intervention, and as grounds for their intervention they respectfully show:

1. That petitioners are citizens and residents of the State of Virginia and are the duly qualified and acting Receivers of the properties and assets of Seaboard Air Line Railway [fol. 48] Company, a corporation of Virginia and other states. By orders dated December 23, 1930, the District Courts of the United States for the Eastern District of Virginia and the Southern District of Florida appointed Legh R. Powell, Jr., and Ethelbert W. Smith as Receivers of the properties and assets of Seaboard Air Line Railway Company. Ethelbert W. Smith resigned as Receiver, effective December 31, 1932, and by orders of this last mentioned date, entered by the two aforesaid Courts, Henry W. Anderson was appointed Receiver in his place. Both the primary and ancillary receivership proceedings in which the Receivers were appointed are still pending in the said Courts, the primary proceedings being in the Virginia Court and the ancillary proceedings being in the Florida Court. In compliance with Section 56 of the Judicial Code of the United States certified copies of the bills and orders of the appointment of said Receivers have been filed in the Clerk's Office of this honorable Court and in the Courts of each District of the Circuit in which any portion of the property of Seaboard Air Line Railway Company is situated.

2. That the petitioners, as such Receivers, are engaged in interstate commerce in South Carolina and other states and operate lines of railroad in that state and other states subject to the Act to Regulate Commerce.

3. That the plaintiffs are competing carriers of freight and passengers and operate motor vehicles over the public highways of the State of South Carolina.

4. That the South Carolina statute assailed in the plaintiffs' bill was enacted to regulate motor vehicles traversing [fol. 49] the highways of South Carolina, including those engaged in interstate commerce, and particularly to prescribe the maximum weights and sizes of such motor vehicles operating over the South Carolina highways.

5. That the petitioners have the lawful right to insist that all motor vehicles, including those engaged in interstate commerce, operating over the public highways of South Carolina, operate in compliance with the South Carolina laws, and particularly those prescribing the maximum weights and sizes, and that the petitioners have the further lawful right to enjoin the non-compliance with such statutory requirements.

6. Petitioners aver that if motor vehicles, and particularly those of the plaintiffs, be permitted to operate upon, along and over the public highways of South Carolina in defiance of the requirements of the South Carolina statute, including those provisions prescribing maximum weights and sizes, your petitioners will be wrongfully and unlawfully subjected to unfair competition in that such larger and heavier motor vehicles of the plaintiffs will have the capacity to carry, and doubtless will carry, greater quantities of freight and a larger number of passengers in contravention and impairment of the franchise rights of your petitioners as common carriers by rail in South Carolina, and thereby wrongfully and unlawfully deprive your petitioners of vast amounts of revenue to which they are entitled and would otherwise receive.

[fol. 50] 7. Petitioners further say that if the plaintiffs be permitted to operate over the public highways of South Carolina motor vehicles of the sizes and weights which the plaintiffs are asserting in this suit they have the right to operate the inevitable result will be the very rapid deterioration of the public highways and the bridges constituting links in such highways—in many instances amounting to virtual destruction of such highways and bridges, and in consequence thereof your petitioners, as large taxpayers in the State of South Carolina, will be assessed with and be

required to pay large sums in taxes in excess of the amounts they would be required to pay if the unlawful operations of the plaintiffs be not permitted.

8. That the plaintiffs herein are wrongfully asserting that the South Carolina statute involved in these proceedings has been superseded by an Act of Congress of August 9, 1935, known as "The Motor Carrier Act, 1935", whereas the truth is that the said Act of Congress neither purports to supersede, nor does it have the effect of superseding, the South Carolina statute involved in this suit in so far as weights and sizes of motor vehicles are concerned, but the said South Carolina Act is now in full force and effect with respect to such weights and sizes, anything in the said Act of Congress notwithstanding.

Wherefore your petitioners say that they have a vital legal interest in this litigation and they therefore pray that [fol. 51] they be permitted to intervene in this suit and be made parties defendant thereto and that they be granted the same relief for which the defendants have asked in their pleadings heretofore filed and for such other and further relief as the Court may deem proper.

Legh R. Powell, Jr., and Henry W. Anderson, as Receivers of the Properties and Assets of Seaboard Air Line Railway Company, by J. B. S. Lyles, Attorney.

[fol. 52] IN UNITED STATES DISTRICT COURT

[Title omitted]

PETITION OF ATLANTIC COAST LINE RAILROAD COMPANY AND CHARLESTON AND WESTERN CAROLINA RAILWAY COMPANY TO INTERVENE AS DEFENDANTS—Filed November 25, 1936

To the Honorable Judges of the Above-Named Court:

Now come Atlantic Coast Line Railroad Company and Charleston & Western Carolina Railway Company, and petition the Court for leave to intervene in the above entitled cause as parties defendant and pray that upon the granting of such leave this petition be permitted to stand as their bill of intervention, and as grounds for their intervention they respectfully show:

1. That the petitioner Atlantic Coast Line Railroad Company is now, and was at the times hereinafter mentioned, a corporation duly organized and existing under and by virtue of the laws of the State of Virginia, owning properties and operating as a common carrier by railroad in the State of Virginia, in the State of South Carolina and other states, and being engaged in interstate commerce in South Carolina [fol. 53] and other states and subject to the Act to regulate commerce.

2. That the petitioner Charleston & Western Carolina Railway Company is now, and was at the times hereinafter mentioned, a corporation duly organized and existing under and by virtue of the laws of the State of South Carolina, owning properties and operating as a common carrier by railroad in the States of South Carolina and Georgia, and being engaged in interstate commerce in said states.

3. That the plaintiffs are competing carriers of freight and passengers and operate motor vehicles over the public highways of the State of South Carolina.

4. That the South Carolina statute assailed in the plaintiffs' bill was enacted to regulate motor vehicles traversing the highways of South Carolina, including those engaged in interstate commerce, and particularly to prescribe the maximum weights and sizes of such motor vehicles operating over the South Carolina highways.

5. That the petitioners have the lawful right to insist that all motor vehicles, including those engaged in interstate commerce, operating over the public highways of South Carolina, operate in compliance with the South Carolina laws, and particularly those prescribing the maximum weights and sizes, and that the petitioners have the further lawful right to enjoin the non-compliance with such statutory requirements.

6. Petitioners aver that if motor vehicles, and particularly those of the plaintiffs, be permitted to operate upon, along and over the public highways of South Carolina in defiance of the requirements of the South Carolina statute, including those provisions prescribing maximum weights and sizes, your petitioners will be wrongfully and unlawfully subjected to unfair competition in that such larger and heavier [fol. 54] motor vehicles of the plaintiffs will have the

capacity to carry, and doubtless will carry, greater quantities of freight and a larger number of passengers in contravention and impairment of the franchise rights of your petitioners as common carriers by rail in South Carolina, and thereby wrongfully and unlawfully deprive your petitioners of vast amounts of revenue to which they are entitled and would otherwise receive.

7. Petitioners further say that if the plaintiffs be permitted to operate over the public highways of South Carolina motor vehicles of the sizes and weights which the plaintiffs are asserting in this suit they have the right to operate the inevitable result will be the very rapid deterioration of the public highways and the bridges constituting links in such highways—in many instances amounting to virtual destruction of such highways and bridges, and in consequence thereof your petitioners, as large taxpayers in the State of South Carolina, will be assessed with and be required to pay large sums in taxes in excess of the amounts they would be required to pay if the unlawful operations of the plaintiffs be not permitted.

8. That the plaintiffs herein are wrongfully asserting that the South Carolina statute involved in these proceedings has been superseded by an Act of Congress of August 9, 1935, known as "The Motor Carrier Act, 1935", whereas the truth is that the said Act of Congress neither purports to supersede, nor does it have the effect of superseding, the South Carolina statute involved in this suit in so far as weights and sizes of motor vehicles are concerned, but the said South Carolina Act is now in full force and effect with respect to such weights and sizes, anything in the said Act of Congress notwithstanding.

[fol. 55] Wherefore, your petitioners represent that they have a vital legal interest in this litigation and they therefore pray that they be permitted to intervene in this suit and be made parties defendant thereto and that they be granted the same relief for which the defendants have asked in their pleadings heretofore filed and for such other and further relief as the Court may deem proper.

Atlantic Coast Line Railroad Company and Charleston & Western Carolina Railway Company, by Thos. W. Davis, Douglas McKay, M. G. McDonald, Attorneys.

[fol. 56] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER PERMITTING INTERSTATE COMMERCE COMMISSION TO INTERVENE—Filed November 30, 1936

Upon consideration of the Motion and Petition of Interstate Commerce Commission for leave to intervene as a party plaintiff in this cause.

It is Ordered That Interstate Commerce Commission be and hereby is permitted to intervene as a party plaintiff and to appear and otherwise participate at the proceedings.

It is Further Ordered That its petition for intervention stand as its Bill of Intervention in the cause, and that Answers of the several defendants heretofore filed stand as their Answers to such Bill of Intervention.

John J. Parker, U. S. Circuit Judge. Elliott Northcott, U. S. Circuit Judge. J. Lyles Glenn, U. S. District Judge.

November 30th, 1936.

[fol. 57] IN UNITED STATES DISTRICT COURT

[Title omitted]

PETITION OF MARLBORO PRODUCE ASSOCIATION TO INTERVENE AS A PLAINTIFF—Filed December 1, 1936

To the Honorable Judges of the Above-Named Court:

Now comes Marlboro Produce Association and petitions the Court for leave to intervene in the above entitled cause as a party plaintiff and prays that upon granting of such leave this petition be permitted to stand as its Bill of Intervention, and as grounds for its intervention it respectfully shows:

1. That it is a voluntary association of farmers engaging in cooperatively and with the assistance of the County of Marlboro, in marketing for its individual members farm products raised in the County of Marlboro, State of South Carolina, Northern markets through Inter State Commerce.

That at an expense of approximately fifteen hundred dollars paid through taxation by Marlboro County and an ap-

proximate like expense paid by the United States Government, through its Public Works Administration, there has been built near Bennettsville, the County Seat of said County and State, a large market building where the individual farmers of said county bring for transportation to markets in other States their farm produce; that this Association brought into the County only this year considerable sums of money through its cooperative efforts for the sale of farm products to other states, and is rapidly growing in business and financial assistance to numerous growers of the County.

[fol. 58] 2. That under the pleadings and proceedings heretofore had in the case there are placed in litigation questions: (1) as to whether Congress by the enactment of "The Motor Carrier Act, 1935" (Act of August 9, 1935, 49 Stat. L. 543) has purported to so enter the field of regulation of interstate transportation by motor carriers as to exclude the power of the State of South Carolina lawfully to enact and enforce a statute approved April 28, 1935 (38 Stat. 340), so far as the same restricts as to weight, height, size, safety and qualifications of drivers, the use of motor vehicles operating in interstate commerce on the highways of the state, and (2) if such Federal legislation purports to so enter the field of regulation of interstate transportation by motor carriers, whether such legislation is constitutionally valid.

3. That your petitioner is interested in the matter in litigation by reason of the fact that it is an Agency for large numbers of farmers and the sale of whose products through this agency is primarily dependent upon motor transportation which will be practically ruined and its growth prevented, should the Act of the legislature mentioned drafted in the Plaintiffs' Bill of Complaint herein be permitted to stand.

4. That the plaintiff adopts the allegation of the Bill of Complaint contained in that part of sub-section 9 of Section III from the beginning thereof up to the semi-colon preceding the last line on page 10 of the bill of complaint, and such parts of sub-section 9 thereafter as allege that the defendants have undertaken to enforce and, unless restrained, will continue to enforce the provisions of the said statute of South Carolina.

5. That this application for intervention is made with the consent of the plaintiffs in this cause.

6. That the petitioner joins in the prayer for relief as set out in the bill of complaint herein.

Marlboro Produce Association, by Tison & Miller, attorney and chief counsel.

(Petition verified.)

[fol. 59] IN UNITED STATES DISTRICT COURT

[Title omitted]

PETITION OF A. J. MATTHESON, INC., TO INTERVENE AS PLAINTIFF—Filed December 1, 1936

To the Honorable Judges of the Above-Named Court:

Now comes A. J. Mattheson, Inc., and petitions the court for leave to intervene in the above *tne*itled cause as a party plaintiff and prays that upon granting of such leave this petition be permitted to stand as its Bill of Intervension, and as grounds for its intervention it respectfully shows:

1. That it is a corporation chartered and existing under and by the laws of the State of South Carolina, engaged in buying through channels of interstate commerce gasolene, kerosene, and oils, which products it then sells exclusively to dealers who in turn retail said products to trucks and motor vehicles engaged in intra and inter state business.

That approximately 65% of your petitioner's business consists of resales by its dealers to trucks engated in interstate business, the weight and size of which trucks when loaded as customary for the trade exceeds the width and size as specified in Act #259 of the General Assembly *if* South Carolina for the year 1933; as, also, are the trucks delivering the products above named for distribution.

2. That at an expense of many thousands of dollars your petitioner has bought property, erected buildings, and equipped the same with modern equipment through the past number of years for the furnishing of the above named products to its dealers to be sold in interstate business, and its business is so built around the modern custom and [fol. 60] necessities of motor transportation by trucks that

would exceed the weight and size as specified in the Act above stated, as to cause the enforcement of said Act to practically ruin its business and to put a number of people out of employment now engaged by and through the activities of this intervening petitioner.

2. That under the pleadings and proceedings heretofore had in the cause there are placed in litigation questions: (1) as to whether Congress by the enactment of "The Motor Carrier Act, 1935" (Act of August 9, 1935, 49 Stat. 543) has purported to so enter the field of regulation of interstate transportation by motor carriers as to exclude the power of the State of South Carolina lawfully to enact and enforce a statute approved April 28, 1935 (38 Stat. 340), so far as the same restricts as to weight, height, size, safety and qualifications of drivers, the use of motor vehicles operating in interstate commerce on the highways of the state, and (2) if such Federal legislation purports to so enter the field of regulation of interstate transportation by motor carriers, whether such legislation is constitutionally valid.

3. That your petitioner is interested in the matter in litigation by reason of the facts before stated, and, that its business is primarily dependent upon motor transportation through the State of South Carolina, which will be practically prevented as to motor trucks hauling freight, should the Act of the legislature before mentioned be held lawful.

4. That the plaintiff adopts the allegation of the Bill of Complaint contained in that part of sub-section 9 of Section III from the beginning thereof up to the semi-colon preceding the last line on page 10 of the bill of complaint, and such parts of sub-section 9 thereafter as allege that the defendants have undertaken to enforce and, unless restrained, will continue to enforce the provisions of the said statute of South Carolina.

5. That this application for intervention is made with the consent of the plaintiffs in this cause.

6. That the petitioner joins in the prayer for relief as set out in the bill of complaint herein.

A. J. Motheson, Inc., by Tison & Miller, Attorney and Chief Counsel.

(Petition verified.)

[fol. 61] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER PERMITTING RECEIVERS OF SEABOARD AIR LINE RAILWAY, ATLANTIC COAST LINE RAILROAD COMPANY, AND CHARLESTON AND WESTERN CAROLINA RAILWAY COMPANY TO INTERVENE AND ADOPT DEFENDANTS' ANSWER—Filed December 2, 1936

It is Ordered That the motions for intervention by the Receivers of Seaboard Air Line Railway Company, Atlantic Coast Line Railroad Company and Charleston & Western Carolina Railway Company be allowed as of November 30, 1936, and that said interveners be permitted to adopt as their pleadings in the suit the motions to dismiss and the answer of the original defendants.

John J. Parker, Senior Circuit Judge Presiding.

December 2, 1936.

[fol. 62] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER ALLOWING MARLBORO PRODUCE ASSOCIATION AND A. J. MATTHESON, INC., TO INTERVENE AND ADOPT PLAINTIFFS' COMPLAINT—Filed December 3, 1936

Upon consideration of the motion and petition of Marlboro Produce Association and A. J. Matheson, Inc., for leave to intervene as parties plaintiff in this cause;

It is Ordered That Marlboro Produce Association and A. J. Matheson, Inc., be and each hereby is permitted to intervene as a party plaintiff and to appear and otherwise participate at the proceedings.

It is Further Ordered that petition for intervention of each stands as its Bill of Intervention in the cause, and that answers of the several defendants heretofore filed stand as their answers to such Bill of Intervention.

John J. Parker, U. S. Circuit Judge. Elliott Northcott, U. S. Circuit Judge. J. Lyles Glenn, U. S. District Judge.

December 2, 1936.

[fol. 63] IN UNITED STATES DISTRICT COURT

[Title omitted]

OPINION—Filed January 20, 1937

On Final Hearing.

(Argued November 30, 1936. Decided —— —, ——.)

Before Parker and Northcott, Circuit Judges, and Glenn, District Judge.

S. King Funkhouser, J. Ninian Beall (S. King Funkhouser, J. Ninian Beall and Frank Coleman on brief) for plaintiffs; John M. Daniel, J. Ivey Humphrey, M. J. Hough, Eugene S. Blease and Steve C. Griffith for Defendants; Thomas W. Davis and Douglas McKay for Atlantic Coast Line Railway Company, Intervenor; J. B. S. Lyles for Seaboard Air Line Railway, Intervenor; M. G. McDonald for C. & W. C. Railway Company, Intervenor; E. M. Reidy and Thomas M. Ross for Interstate Commerce Commission, Intervenor; and John E. Benton, as amicus curiæ.

[fol. 64] PARKER, Circuit Judge:

This is a suit to enjoin the enforcement against trucks which are being operated in interstate commerce of the provisions of Sections 3, 4, 5, 6, and 7, relating to size and weight, of Act No. 259 of the General Assembly of South Carolina, approved April 28, 1933, 38 Stats. 340. The plaintiffs are either corporations engaged in operating truck lines in interstate commerce or persons or corporations engaged in shipping produce or merchandise by truck in interstate commerce. The defendants are the various officials of the State of South Carolina who are charged with the duty of enforcing the act. Intervention has been allowed on the part of one shipper, who was not a party to the original bill, and of certain railroad companies, who are interested in seeing the act enforced, on the ground that enforcement thereof will free them of competition based on violation of law. The Interstate Commerce Commission also has been allowed to intervene.

The bill as originally filed did not ask for interlocutory injunction, and a motion to dismiss was heard by the district

judge and was allowed as to the allegations of the bill which merely alleged violation of the due process and equal protection clauses of the 14th Amendment and generally that the provision of the act constituted a burden on interstate commerce, but was disallowed as to allegations that the act constituted a regulation of interstate commerce with respect to matters covered by the motor carriers act of 1935. The plaintiffs thereupon asked for an interlocutory injunction forbidding the enforcement of the act pending a final hearing, and the judge granted a temporary restraining order and convened a court of three judges pursuant to [fol. 65] Section 266 of the Judicial Code (U. S. C. A. 380). At the hearing before this court of three judges, it was decided to reconsider all the questions raised by the bill and answer and give judgment thereon in order that all matters involved in the litigation might be disposed of promptly and heard on one appeal. None of the parties objected to this course, but on the contrary expressed a desire that action be taken which would expedite the final decision of the cause. In our opinion, there could be no valid objection to this course, as the court of three judges could unquestionably permit an amendment of the bill before it, and could permit the plaintiffs to reintroduce, by such amendment, such portions of the bill as had been stricken on the motion to dismiss; and this, in effect, was what was done. It was thereupon agreed that upon the evidence to be presented the cause would be submitted for final decree by the court, and not merely in support of the application for interlocutory injunction; and the court has heard the parties fully, the evidence being directed to whether the size and weight provisions of the statute complained of constitute an unreasonable burden upon interstate commerce.

The statute in effect in South Carolina prior to the passage of the act complained of was Act No. 685, Laws of 1930 (36 Stats. 1192). It prescribed a gross weight for single vehicles of 25,000 pounds, with a maximum axle load of 10,000 pounds, and a maximum weight of any combination of vehicles of 40,000 pounds. The act of 1933 limited the gross weight of any vehicle to 20,000 pounds and provided that any "tractor (or motor propelled truck), together with the semi-trailer" should "be considered one unit", so that a limitation of 20,000 pounds was put on the tractor-semi-[fol. 66] trailer unit, as to which a maximum weight of 40,-

000 pounds had been allowed under the preceding law. Both the 1930 Act and the Act of 1933 contain provisions limiting the width of trucks to 90 inches. The bill attacks these three provisions of the Act, viz: (1) the one limiting the gross weight of single trucks to 20,000 pounds; (2) the one providing that a tractor-semi-trailer shall be considered a single unit for the purpose of determining weight and thereby limiting the weight of such combination to 20,000 pounds; and (3) the one limiting width to 90 inches. The attack is made on three grounds: (1) that the provisions of the act in question are in violation of the 14th Amendment in that "they constitute an unreasonable, arbitrary and capricious interference with the rights of plaintiffs to use the highways in a reasonable manner and for a lawful purpose"; (2) that they have been superseded by the federal Motor Carriers Act of 1935; and (3) that they constitute an unreasonable burden upon interstate commerce.

Little need be said as to the first ground of attack, i. e. that the statute is violative of the 14th Amendment. This is sufficiently dealt with by the Supreme Court of South Carolina in the case of State v. John P. Nutt Co., — S. C. —, 185 S. E. 25, Cert. denied — U. S. —; and there is no occasion to add anything to what is there said as to this aspect of the case. We agree with the conclusion there reached on this point.

And we are not impressed with the second ground of attack, i. e. that the provisions of the statute have been superseded as a result of the enactment of the Motor Carriers Act of 1935. It is not necessary to inquire into the power of Congress to regulate the size and weight of vehicles used in interstate commerce on the roads of the several states or into the limitations upon that power; for we think it perfectly clear that in the Motor Carriers Act Congress did not [fol. 67] attempt to exercise such power, but, on the contrary, expressly refrained from exercising it. Section 225 of that Act provides (49 U. S. C. A. 325):

"The Commission is hereby authorized to investigate and report on the need for Federal regulation of the sizes and weight of motor vehicles and combinations of motor vehicles and of the qualifications and maximum hours of service of employees of all motor carriers and private carriers of property by motor vehicle; and in such investigation the Commission shall avail itself of the assistance of

all departments or bureaus of the Government and of any organization of motor carriers having special knowledge of any such matter."

Reliance is placed upon Section 202a (49 U. S. C. A. 302a) declaring the purpose of the act, and particularly upon Section 204a (1) (2) and (3) (49 U. S. C. A. 304a) (1), (2) and (3), defining the powers of the Commission, which are as follows:

"202. (a) It is hereby declared to be the policy of Congress to regulate transportation by motor carriers in such manner as to recognize and preserve the inherent advantages of, and foster sound economic conditions in, such transportation and among such carriers in the public interest; promote adequate, economical, and efficient service by motor carriers, and reasonable charges therefor, without unjust discriminations, undue preferences or advantages, and unfair or destructive competitive practices; improve the relations between, and coordinate transportation by and regulation of, motor carriers and other carriers; develop and preserve a highway transportation system properly adapted to the needs of the commerce of the United States and of the national defense; and cooperate with the several States and the duly authorized officials thereof and with any organization of motor carriers in the administration and enforcement of this chapter.

"204. (a) Powers and duties generally. It shall be the duty of the Commission

"(1) To regulate common carriers by motor vehicle as provided in this chapter, and to that end the Commission may establish reasonable requirements with respect to continuous and adequate service, transportation of baggage and express, uniform systems of accounts, records, and reports, preservation of records, qualifications and maximum hours of service of employees, and safety of operation and equipment.

"(2) To regulate contract carriers by motor vehicle as provided in this chapter, and to that end the Commission may establish reasonable requirements with respect to uni- [fol. 68] form systems of accounts, records, and reports, preservation of records, qualifications and maximum hours of service of employees, and safety of operation and equipment.

"(3) To establish for private carriers of property by motor vehicle, if need therefor is found, reasonable requirements to promote safety of operation, and to that end prescribe qualifications and maximum hours of service of employees, and standards of equipment."

It is argued that authority in the Commission to control size and weight of motor vehicles is to be found in the provisions of Section 204, subsections a(1) and a(2), authorizing the Commission to establish reasonable requirements with respect to "safety of operation and equipment" in the case of common and contract carriers, and in the provision of subsection a(3) authorizing "standards of equipment" to be prescribed for private carriers. The presumption is hardly to be indulged that Congress intended to include size and weight in "safety of operation and equipment" or "standards of equipment", as to which the Commission was given full power of regulation, when by Section 225, size and weight were specifically dealt with and the Commission was authorized merely to investigate as to these and report on the need of regulation. The rule of statutory interpretation is well settled that "general language of a statutory provision, although broad enough to include it, will not be held to apply a matter specifically dealt with in another part of the same enactment • • •. Specific terms prevail over the general in the same or another statute which might otherwise be controlling." Ginsberg & Son v. Popkin, 285 U. S. 204, 208; Kepner v. United States, 195 U. S. 100, 125; United States v. Chase, 135 U. S. 255, 260. In the case last cited the rule is thus stated:

[fol. 69] "It is an old and familiar rule that, 'where there is, in the same statute, a particular enactment, and also a general one, which, in its most comprehensive sense, would include what is embraced in the former, the particular enactment must be operative, and the general enactment must be taken to affect only such cases within its general language as are not within the provisions of the particular enactment.' Pretty v. Solly, 26 Beavan, 610, per Romilly, M. R.; State v. Com'rs of Railroad Taxation, 37 N. J. Law, 228. This rule applies wherever an act contains general provisions and also special ones upon a subject,

which, standing alone, the general provisions would include. Endlich on the Interpretation of Statutes, 560."

Indeed, it would be only by a strained construction of language that the provision authorizing the commission to establish requirements with respect to safety of equipment or standards of equipment could be held to confer power to regulate size and weight of vehicles. Safety of equipment and standards of equipment as applied to vehicles moving in interstate commerce are expressions which naturally have reference to safety with respect to commerce or persons engaged therein over which Congress has undoubted jurisdiction, whereas size and weight are matters which relate chiefly to the safety and preservation of highways, as to which jurisdiction resides primarily in the several states. And it is worthy of note that the regulation of size and weight is treated by road authorities quite generally as a matter altogether different from the regulation of equipment. Thus, in the proposed Uniform Act Regulating Traffic and Highways, as redrafted in 1934 by the National Conference on Street and Highway Safety, of which the Secretary of Commerce was Chairman, in cooperation with the National Conference of Commissioners on Uniform State Laws, published by the Bureau of Public Roads of the Department of Agriculture, equipment is dealt with in an entirely separate chapter from size, weight and load. Chapter 15 of the proposed act deals with equipment and regulates such matters as lights, brakes, horns, mufflers, mirrors, wind-[fol. 70] shields, safety glass, inspection of equipment, etc. Chapter 16 deals with width, height and length of vehicles, use of trailers, wheel and axle loads, gross loads etc. The Commission itself has construed the act as not imposing upon it the duty of regulating size and weight; for it has caused its Bureau of Motor Carriers to draft proposed safety regulations to be prescribed by it under the sections of the act which we have quoted, and these proposed safety regulations have no reference to size or weight of vehicles but are addressed to such matters as "lighting devices and reflectors," "safety glass," "brakes" and "Miscellaneous parts and accessories."

If there were any doubt as to the meaning of the act in this respect, and we are not to be understood as implying that we think that there is, the history of the legisla-

tion would conclusively demonstrate that it was not the intention of Congress to give to the Commission the power to regulate size and weight. The act was the legislative result of studies made by the Coordinator of Transportation under Congressional authority. In his report to the 73d Congress, 2d session (Senate Document No. 152), the Coordinator called attention in detail to state legislation regulating size and weight (pp. 206, 207), referred to the feeling that varying traffic, topographic and financial conditions in the different states warranted diversity of weight limitations (pp. 213-214), and with respect to the provision of the bill said (p. 45):

"Section 325 of the proposed bill authorizes the Commission to investigate and report to Congress upon the need for Federal regulation of the sizes and weights of all motor vehicles operating in interstate and foreign commerce, and of the qualifications and maximum hours of service of employees, this investigation to cover private as well as for-hire carriers. The Rayburn bill contains no provision respecting these matters except that it provides for regu- [fol. 71] lation of the qualifications and hours of service of the employees of common and contract carriers. While the inquiry made by the coordinator's staff indicates a possible need for these forms of Federal regulation, the subject is one which may appropriately be postponed for future consideration."

In the hearing before the Committee on Interstate Commerce of the Senate, Coodinator Eastman said (at p. 92 of hearing on S-1629, 74th Congress):

"In answer to one of your questions I started to say something about the regulations with respect to the sizes and weights of vehicles. It is true that by drastic and unreasonable regulations of that character one State might interfere with interstate commerce and prevent the reasonable operation of vehicles in interstate commerce. We do not undertake in this bill to cover that situation, except to provide for a thorough investigation of it by the Commission, with recommendations to Congress, because there is involved there not only a question of fact as to what the regulation should be but also as to how far the Federal Government has power to interfere with the exercise of the

police power by the States with respect to the use of their highways."

The act as originally introduced dealt with qualifications and maximum hours of service of employees, as well as with size and weight, only in section 225. It was amended during its passage, however, so as to give the Commission authority to regulate "qualifications and maximum hours of service of employees," these words being inserted in subsections 1 and 2 of section 204a and an additional subsection as to private carriers (being subsection 3 of 204a) being added. The fact that the section prescribing the powers of the Commission were thus amended to include a part of what was already covered by Section 225, while the remainder of what was covered by that section, i. e. size and weight, were not included in the amendment, raises a strong presumption that it was not the intention of Congress that the Commission should be given regulatory power over these. The report of the Senate Committee to which the brief of the Commission refers, in saying "Such an investigation is still authorized (Sec. 225), but if the Commission determines after investigation that there is [fol. 72] need for such regulation, it may impose reasonable requirements without further legislation", has reference to the investigation as to need for regulation of qualifications and maximum hours of service of employees, and not to the investigation authorized as to need of regulation of size and weight of vehicles.

The Commission makes an argument based upon the rejection by the Senate of an amendment offered by Senator Duffy which provided in part "* * * That the laws enacted in any state and regulations thereunder that relate to the maintenance, protection, safety or use of the highways therein, which do not discriminate against motor vehicles used in interstate commerce, shall not be deemed to be a burden on or an obstruction or impediment to interstate commerce, and the power to enact such laws and promulgate such regulations thereunder is hereby expressly recognized and confirmed to the respective states." The answer to this is that the effect of the incorporation of the language quoted in the statute would have been to sanction state regulations of size and weight even though these might amount to an unreasonable interference with inter-

state commerce and be void for that reason in the absence of Congressional approval.

To sum up on this feature of the case, we do not think that there is anything in the language or in the history of the act which shows an intention on the part of Congress to regulate the size and weight of vehicles; and it is unreasonable to think that Congress would intend, by vague general language, to clothe the Commission with power to regulate a matter of such difficulty in which detailed regulations had already been prescribed by all of the 48 states, and thereby strike down all state regulations affecting the matter and leave the subject unregulated until such time [fol. 73] as the Commission might act. Our conclusion as to the proper interpretation of the Act is supported by the following recent decisions. L. & L. Freight Lines et al. vs. Railroad Commission of Florida (D. C. Fla.) — Fed. Supp. —, Lowe v. Stoutamire, — Fla. —, 166 Sou. 310; Railroad Com. v. Southwestern Greyhound Lines (Tex. Civ. App.), 92 S. W. (2d) 296. In the case first cited, Judge Strum well said:

"It is significant, and worthy of particular note, that the regulation of 'weights' of such motor vehicles,—obviously a most important element of regulation,—was not included amongst the matters specifically enumerated in Sec. 204 (a)(1). The Act contains no express or specific regulation, nor authority to regulate, motor carriers as to size or weights. If such authority is to be found in the Act it must be spelled out either from the general language 'to regulate common carriers by motor vehicle,' or by interpretation of the terms 'safety of operation and equipment.'

"The argument that such authority is to be found in the quoted phrases is refuted by the specific provisions of Sec. 225 of the Act (49 U. S. C. A. 325) that 'the Commission is hereby authorized to investigate and report on the need for Federal regulation of the sizes and weights of motor vehicles and combinations of motor vehicles * * *'. It should be noted that this section does not provide that the Commission shall determine by investigation what the sizes and weights of motor vehicles should be, and thereupon to adopt regulations to put the same into effect. The authority is merely to 'investigate and report on' the 'need' for Federal regulation of sizes and weights,—a wholly pro-

spective matter, clearly indicating an absence of intent to presently regulate in that respect. If Congress intended to presently regulate in respect of sizes and weights, but desired the Commission to first determine by investigation what the regulations should be and thereafter put the same into effect, more apt language to that end would have, no doubt, been used. Sec. 204 of the Act specifically enumerates practically every aspect of regulation, except as to sizes and weights. The language of Sec. 225 of the Act makes it quite clear that the omission of sizes and weights was no mere oversight, but was deliberate. When that omission is viewed in connection with the language of Section 225 of the Act authorizing the Commission to investigate and 'report on' the 'need' for Federal regulation of sizes and weights,—not to determine what such regulations shall be, nor to put any such regulation in effect, but merely to 'report,'—the conclusion is inescapable that Congress intended to withhold regulation in that respect until some future time."

We come, then, to the third ground of attack upon the [fol. 74] statutory regulations complained of, viz., that they constitute an unreasonable burden upon interstate commerce; and we think that the contention of plaintiffs as to this must be sustained in so far as applied to the operation of trucks upon the standard concrete highways of the state and those highways which constitute the great arteries of interstate commerce, even though short stretches of them are not of standard construction, i. e. federal highways 1, 15-A, 17, 21, 25, 29 and 52. We think it an unreasonable burden upon interstate commerce to apply the 20,000 pound gross load limitation, or the statutory rule requiring that the tractor-semi-trailer combination be considered as one vehicle for the purpose of applying the gross load limitation, or the 90 inch width limitation to trucks which do not exceed 96 inches in width, using the standard concrete highways of the state. As the great arteries of interstate commerce above referred to carry the larger part of interstate traffic moving to and from the state, as well as such traffic passing through the state to and from Georgia and Florida and the states to the north, and as these arteries of interstate commerce are constructed almost entirely of standard concrete paving, we think it an unreasonable burden upon the interstate commerce moving over them to enforce the restriction above mentioned, and thereby virtually close

the roads of the state to a large part of such commerce, merely because there are short sections of such highways which have not as yet been constructed of standard paving. As there are a few bridges on these highways which were not built to support the heavy trucks of modern traffic, and a few which are too narrow, we think that the enforcement of the act should not be held unreasonable as to such bridges, provided they are properly marked with warning signs forbidding trucks of excessive weight or size to enter upon them. The facts upon which these conclusions are based are as follows:

[fol. 75] Within the past decade there has been a great development of interstate commerce by truck, and a corresponding change and development of industry in the southeastern part of the United States based upon truck transportation. The market gardening industry, the textile industry, the fertilizer industry and many others have changed in large part their method of doing business as a result of the facilities afforded them by the use of trucks in interstate commerce. This traffic has developed transportation units of great efficiency designed to carry a maximum load with a minimum of burden or strain to the roads over which they pass. Chief among these is the tractor-semi-trailer, in which the power unit is detachable from the load carrying unit, and in connection with the latter imposes no greater strain upon the highway than two trucks of corresponding weight, one following behind the other. Multiplication of axles and wheels distributes the weight of the load, and further protection is obtained from the use of low pressure pneumatic tires, so that with this modern equipment it is possible to move a heavily loaded truck over the highway with no greater injury to the modern standard pavement than would result from the movement over it of an ordinary passenger car. A large part of this interstate traffic, with all that it means to the life of the people of the southeastern part of the United States, will be virtually barred from the highways of South Carolina, and a barrier will be erected not merely against the commerce of the state but also as against the commerce of sister states, if these restrictions are enforced; and the reasonableness of the restrictions must be viewed in the light of such a consequence.

The evidence establishes that South Carolina has the best highway system to be found in the southeastern part

of the United States. There are within the state 60,000 [fol. 76] miles of roads of all kinds, of which 5,948 miles are embraced in the state highway system. Of these, 2,417 miles are of standard pavement; and the arteries of interstate commerce to which we have referred are of this character with the exception of a few short lengths, as for instance 6 or 7 miles in highway No. 1 near Cheraw, out of a total length of the highway of 140 miles or more. This standard paving is not materially different from modern pavement used in most of the other states of the Union, is 18 or 20 feet in width, 7½ or 8 inches thick at the edges and 6 or 6½ inches thick at the center. It is capable of sustaining without injury a wheel load of 8,000 or 9,000 pounds and an axle load of from 16,000 to 18,000 pounds.

Where standard paving is involved, it is the axle or wheel load which is of importance in limitation of weight, and not the gross weight of the truck; for, no matter what the total weight of the vehicle, there is no additional stress on the road if the wheel or axle load is not excessive and there is a space of 40 inches between axles. For this reason, there is no reason for limiting gross load on such roads to 20,000 pounds and likewise no reason for considering the tractor-semi-trailer combination as one vehicle for the purpose of applying the weight limitation. Only five states of the Union limit the gross weight of vehicles to 20,000 pounds, viz., South Carolina, Tennessee, Alabama, Mississippi and Texas.

It is argued that on the roads which are paved with standard pavement there are some bridges which were constructed for a maximum ten ton load; but it appears that these bridges were constructed to bear a series of ten ton trucks going in opposite directions across the bridge (and [fol. 77] the tractor-semi-trailer combination imposes no more stress than one truck following another); that they have been strengthened to bear the increasingly heavy traffic, and that the heavy trucks of interstate commerce have been using them at least since 1930 when the law permitted a gross weight of 40,000 pounds in a truck trailer combination. As a result of the injunction in the Nutt case these bridges, as well as the standard pavement roads, have been used by the traffic which would be excluded by the act of 1933 without substantial injury. It is true, however, that some of these bridges were not constructed to bear the

heavy loads of modern traffic; and as to such bridges the load limitation of the statute cannot be held unreasonable, and our injunctive order will not protect plaintiffs in the use of such bridges where they have been properly marked with notices forbidding their use by trucks not complying with the statutory requirements.

It is likewise argued that even where the roads are of standard construction, this construction has not been used in some of the town and city streets which are a part of the roads; and that the load limitation of the statute is a reasonable one for the protection of these streets. There is no showing, however, that there has been substantial damage to any streets as a result of the heavy traffic which has been passing over them for the past five years, and no reasonable ground to apprehend such damage in the future. And, even if this were not true, a regulation which would in effect drive a vitally important part of interstate commerce from 2,400 miles of road capable of sustaining it, because there are a few weak streets at various places in the system, is a patently unreasonable regulation. A system of highways of 2,400 miles is a substantial system. When it has been designed for the accommodation of traf- [fol. 78] fic of the character carried on by the interstate motor carriers, it is unreasonable to withhold the entire system from the use of such traffic because of a few weak links, which, if injured by the traffic, can be repaired at comparatively slight expense.

So far as the width of the trucks is concerned, it appears that 96 inches is the standard width of the trucks now used in long distance hauling and engaged in interstate commerce, that 85% of the trucks manufactured for long distance hauling are of that width, and that South Carolina is the only state in the Union which limits the width of trucks using its roads to 90 inches. As this limitation would bar from the roads many of the trucks engaged in interstate commerce, and as the standard pavement roads, with the exception of about 100 miles, are 18 to 20 feet in width and furnish ample space for the safe operation of such standard width trucks, the limitation seems clearly an unreasonable one to apply to these roads.

It must be remembered in this connection that this splendid system of highways was constructed to bear the traffic developed by modern conditions; and, because it was

realized that such a system would furnish highways for interstate commerce which would facilitate the growth and development of the nation, the federal government has supplied to the state of South Carolina funds for their construction amounting to $29,000,000, which has been used for that purpose. While the fact that the federal government has aided in the construction of the highways does not, of course, detract from the power of the state to regulate and control them (Morris v. Duby, 274 U. S. 135, 143) it is, we think, a circumstance which should be considered in passing upon the reasonableness of a state statute the effect of which would be to drive an important [fol. 79] part of interstate commerce from the highways and withdraw them to that extent from the use for which they were intended and for which the federal aid was granted. The purpose of this aid in the development of interstate commerce was referred to by the Supreme Court in Nashville etc. R. Co. v. Walters, 294 U. S. 405, 417. In that case the court said of the highways of Tennessee, what is true of these federal aid highways of South Carolina:

"The State highways of Tennessee (as distinguished from county and city roads and turnpikes) have their origin in the Federal-aid highways legislation. The aim of that legislation is 'a connected system of roads for the whole nation'; 'to provide complete and economical highway transport throughout the Nation'; to furnish 'a new means of transportation, no less important to the country as a whole than that offered by the railroads'; to establish 'lines of motor traffic in interstate commerce.' The immediate interest of the Federal Government is, in part, the national defense as well as the transportation of the mails. The relief of the unemployment incident to the business depression has been the main incentive for highway construction since April 4, 1930—the period in which the highway here in question was undertaken and completed.

"To achieve its purposes, the Federal Government has made large contributions to the cost of the Federal-aid highway system. In each year, it has made to each State grants in money, proportioned according to various factors, to be expended in defraying up to one-half the cost of constructing therein the designated highways. In addition, it has, through the War Department, allotted to the several States their pro rata shares of surplus war equip-

ment and supplies valued at more than $224,000,000. It has at all times given to the several States the benefit of its economic and physical research; and other aid by its experts and administrators. It has, since the depression, given to the several States emergency grants to be expended in highway construction for the relief of unemployment. In the fiscal years ending June 30, 1931, 1932 and 1933, during which this highway was authorized and completed, Tennessee received from the Federal Government, for the highway system, in cash, $11,063,325; and at the close of that period practically the entire expense of building Federal-aid roads in the State was being borne by the Federal Government.

"The Secretary of Agriculture, acting through the Federal Bureau of Public Roads, has determined in large measure, not only the location of the Federal-aid highways in the several States, but also their character and their incidents. Early legislation provided that: 'The Secre- [fol. 80] tary of Agriculture and the State highway department of each State shall agree upon the roads to be constructed therein and the character and method of construction.' The Act of 1921 required each State to select and submit to the Secretary, for approval as the object of future Federal-aid expenditures, 'a system of highways not to exceed 7 per centum of the total mileage of such state'; the system was to 'be divided into two classes, one of which shall be known as primary or interstate highways, and the other which shall connect or correlate therewith and be known as secondary or intercounty highways.' Congress transferred to the Secretary the powers and duties in relation to highways and highway transport originally conferred upon the Council of National Defense. The War Plans Division of the General Staff and Corps of Engineers of the War Department promptly cooperated with the Bureau of Public Roads 'in a study the purpose of which is the selection of those highways which are important from a military standpoint.'

"Upon the secretary devolves the duty of prescribing needful rules and regulations, including such recommendations as he might deem necessary for 'insuring the safety of traffic on the highways.'"

And as bearing upon the reasonableness of regulations which would thus burden and hamper interstate commerce

by truck, and in effect drive much of it from the roads of the state, we must consider the experience of other states and the judgment of those having special knowledge with respect to dealing with size and weight of vehicles using the highways. In this connection we find that the proposed Uniform Act Regulating Traffic on Highways to which we have heretofore referred, published by the Bureau of Roads of the United States Department of Agriculture in 1934, and drafted by the National Conference on Street and Highway Safety in the Department of Commerce, provides a width of 8 feet for motor vehicles, a wheel load of 8,000 and an axle load of 16,000 pounds with high pressure pneumatic tires and a wheel load of 9,000 and an axle load of 18,000 pounds with low pressure tires. The following organizations cooperated in the conference in which this proposed uniform act was drafted, viz.: Bureau of Public Roads, U. S. Department of Agriculture; American Association of Motor Vehicle Administrators; American Automobile Association; American Mutual Al- [fol. 81] liance; American Railway Association; American Transit Association; Chamber of Commerce of the United States; National Automobile Chamber of Commerce; National Bureau of Casualty and Surety Underwriters; and National Safety Council. Practically the same recommendations with respect to size and weight and identically the same as to the matters here under consideration, were made by the American Association of State Highway Officials in convention at Washington Nov. 17, 1932; and these have been approved by the following groups: American Automobile Association; American Farm Bureau Federation; American Motorists Association; American Petroleum Institute; Automobile Manufacturers Association; Detroit Board of Commerce; National Association of Motor Bus Operators; National Grange; National Highway Users Conference; National Industrial Traffic League; National Transportation Committee; and Rubber Manufacturers Association.

The American Association of State Highway Officials in its publication "Who shall use the highways and how", in addition to making the foregoing recommendation as to size and axle weights, says: "Highway stresses are ruled by *wheel loads* and not by *gross loads*", and "so far as road surfaces are concerned, the limitation of axle or

wheel loads gives full protection, let gross loads be what they may". For protection of bridges it recommends that gross weight be fixed by the formula W * C (L plus 40), where W represents total gross weight, L the distance in feet between the first and last axles of a vehicle or combination of vehicles, and C a co-efficient to be determined by the individual states. For this co-efficient a minimum of 700 is recommended. Under this recommendation the minimum gross weight limit could hardly be less than 35,000 pounds.

[fol. 82] The law applicable to the situation, is we think, reasonably clear. There can be no doubt as to the power of the state to prescribe reasonable regulations limiting the size and weight of vehicles upon its highways, both for the sake of preserving the highways themselves and for the protection of the public using them. There is a broad range of legislative discretion with respect to such matters, and legislation is not to be condemned merely because the courts may not agree as to its wisdom. Sproles v. Binford, 286 U. S. 374, 388; Morris v. Duby, 274 U. S. 135. But as indicated by the court in the case last cited (274 U. S. at 145), such regulation must not be so arbitrary and unreasonable as to defeat the useful purposes for which Congress has made its large contribution toward the building of the highways. In other words, the states in the exercise of their inherent police power may regulate the use of the highways for the protection of the highways themselves and the safety of the public using them, and certainly in the absence of legislation by Congress may make such regulation applicable to interstate as well as intrastate traffic; but they may not adopt arbitrary regulations, not reasonably necessary for the protection of the highways or of the public, which will directly burden interstate commerce, even though such regulations may not discriminate as between commerce which is interstate and that which is not. As was well said by Mr. Justice Strong in Railroad Co. v. Huson, 95 U. S. 465, 473-474: "The police power of a State cannot obstruct foreign commerce or interstate commerce beyond the necessity for its exercise; and under color of it objects not within its scope cannot be secured at the expense of the protection afforded by the Federal Constitution. And as its range sometimes [fol. 83] comes very near to the field committed by the Constitution to Congress, it is the duty of the courts to guard vigilantly against any needless intrusion."

Under our dual governmental system the control of the highways is committed to the states, whereas the control of interstate commerce passing over those highways is committed to the federal government; and since the decision in Gibbons v. Ogden, 9 Wheat. 1, it has been settled that the states may not in their control of the highways burden or interfere with the free flow of interstate commerce, the regulation of which has been intrusted to Congress. This would not be doubted if the highway in question were a navigable river, but the principle is the same whatever the character of the highway over which the interstate commerce moves. Thus, the federal power extends over artificial waterways constructed by the states (Ex Parte Boyer, 109 U. S. 629, 632), and over a railroad handling cars moving in interstate commerce, although the railroad has been constructed and is being operated by one of the states (U. S. v. State of California, 297 U. S. 175, 56 S. Ct. 421). And when a state builds a road as a highway of commerce, it cannot burden the flow over it of commerce interstate in character. Buck v. Kuykendall, 267 U. S. 307. As said by Mr. Justice Brewer in In re Dobs, 158 U. S. 564, 590:

"Up to a recent date commerce, both interstate and international, was mainly by water, and it is not strange that both the legislation of Congress and the cases in the courts have been principally concerned therewith. The fact that in recent years interstate commerce has come mainly to be carried on by railroads and over artificial highways has in no manner narrowed the scope of the constitutional provision, or abridged the power of Congress over such commerce. On the contrary, the same fulness of control exists in the one case as in the other, and the same power to remove obstructions from the one as from the other.

[fol. 84] "Constitutional provisions do not change, but their operation extends to new matters as the modes of business and the habits of life of the people vary with each succeeding generation. The law of the common carrier is the same today as when transportation on land was by coach and wagon, and on water by canal boat and sailing vessel, yet in its actual operation it touches and regulates transportation by modes then unknown, the railroad train and the steamship. Just so is it with the grant to the national government of power over interstate commerce. The consti-

tution has not changed. The power is the same. But it operates today upon modes of interstate commerce unknown to the fathers, and it will operate with equal force upon any new modes of such commerce which the future may develop."

We have given careful consideration to what was said in Morris v. Duby and Sproles v. Binford, supra, and were at first inclined to think that these decisions were conclusive of the case before us. Upon more mature consideration, we do not think this is correct. It is true that in Morris v. Duby a state statute prescribing a maximum load weight of 16,500 pounds was upheld, and in Sproles v. Binford one prescribing a net load of 7,000 pounds; but in neither of these cases was there any such showing of the unreasonableness of the limitation and of the direct burden upon interstate commerce when applied to a system of standard concrete roads as is contained in the record before us. The same is true of State v. Nutt, supra. In Sproles v. Binford the court commented on the fact (p. 385) that the roads capable of carrying a greater load than the maximum permitted by the statute did not form a regularly connected system and were scattered throughout the state and that the operations of complainant were conducted over all types of highways and bridges. Here we have a connected system of standard highways of the finest character; and there is no reasonable relation between the limitations complained of and the preservation or safety of such highways. In the light of experience and of scientific knowledge, there is no ground for reasonable difference of opinion as to the gross load limitation of 20,000 pounds not being necessary for the [fol. 85] protection of such roads themselves, and there is even less justification for the requirement that the tractor-semi-trailer combination be counted one unit for the purpose of computing gross load. So far as safety is concerned, the evidence shows clearly that there is less danger to traffic from the standard trucks of interstate commerce than from smaller trucks carrying a load for which they are not designed; and certainly there is not enough advantage in a 90 over a 96 inch width to justify the exclusion from an 18 or 20 foot highway of trucks of a width permitted by all other states of the Union. It is true that the enforcement of the provisions of the statute would probably reduce traffic on

the highways to the extent that it would greatly reduce the amount of long distance hauling by truck, but it would do this by placing a direct burden on the interstate commerce now using such highways; and as the highways were constructed to carry such commerce and there is no evidence that the traffic has become so dense as to be a menace to the safety of persons using them, there is no justification for burdening interstate commerce to achieve such a result.

There is another angle from which the reasonableness of police regulations burdening interstate commerce in this way must be judged. Not only has Congress aided in the construction of the roads so that they may become highways of such commerce, but in the enactment of the motor carriers' act, it has recognized truck traffic as a legitimate part of that commerce essential to the welfare of the public and subject to regulation for that reason. As said of Federal aid legislation in Bush Co. v. Maloy, 267 U. S. 317, 324, this legislation regulating motor carriers is of significance be-[fol. 86] cause it makes clear the purpose of Congress that state highways shall be open to commerce of that character. Congress has not attempted to regulate size and weight and there are great practical difficulties in the way of such regulation by Congress. It is of great importance, therefore, that regulation of this matter by the states be held within reasonable bounds, and that they be not permitted, under guise of exercising the police power, to exclude from their highways by unreasonable regulations the interstate commerce which Congress is regulating in the public interest and for the carrying of which it has aided in the construction of roads that form parts of a great national system of highways.

As to highways of the state, other than those which have been paved with standard concrete or standard concrete and asphalt paving, we cannot say that the provisions of the act are unreasonable; and there is no basis upon which an injunction should issue enjoining the enforcement of the act so far as they are concerned. As to them the principles laid down in Morris v. Duby and Sproles v. Binford are applicable. The same is true of bridges which have not been constructed for carrying the heavy trucks of modern traffic, even though they may be located on standard highways. If there were a great many of these, their presence would justify the application of the act to the entire system of highways, but the evidence shows that they are compara-

tively few in number; and interstate commerce, or at least a large part of it, could be so routed as to avoid them entirely. We think, however, that where it is the intention of the defendant to enforce the provisions of the act with respect to any bridge on the roads constituting the arteries of interstate commerce to which we have referred, or on [fol. 87] other roads paved with standard concrete paving, notices to that effect should be posted on both sides of the bridge, of sufficient size and character to give ample warning that the use of the bridge is forbidden to trucks with a gross weight in excess of ten tons or of a width exceeding 90 inches. As the bridges in question are probably capable of carrying the traffic as they have been carrying it for the past five years, we feel justified in enjoining the enforcement of the act as to them unless notice is posted as herein indicated. And in order that the use of bridges may not be unreasonably denied to plaintiffs, and that no hardship may result from the enforcement of our injunctive order with respect to contingencies which may arise and which we are not able now to foresee, we will retain jurisdiction of the cause to the end that the injunctive order may be modified as occasion for such modification may arise.

We are not to be understood as holding that the federal courts possess any regulatory power over the states in the control of the roads. So long as that control is exercised so as not to interfere unreasonably with interstate commerce, the courts have no power to interfere. Any regulation limiting size and weight, having reasonable relation to the preservation of the highways or the safety of persons using them, must be upheld; and we do not doubt the power of the states, in the reasonable exercise of the police power, to bar certain types of vehicles entirely from their roads, or entirely to forbid the use of trucks on certain of the roads provided other roads are available for the use of traffic of this character. But we do not think that the state may erect a Chinese wall around itself by adopting regulations the effect of which would be to bar a large part of interstate [fol. 88] traffic from all of its highways when such regulations have no reasonable relation to their safety or preservation. A gross load limit of 20,000 pounds, as we have seen, has no reasonable relation to either safety or preservation of the standard highway, the provision for counting the tractor-semi-trailer combination as one unit for applying the gross load limitation has even less to commend it, and

the 90 inch width limitation, while doubtless reasonable when viewed in vacuo, cannot be defended in view of the fact that all other states permit the standard width of 96 inches and the only practical effect of the 90 inch limitation is to close the roads to a large part of interstate traffic. It must not be forgotten that the roads, in the final analysis, belong to the people. They are held by the states in trust for the people, who are entitled to make a reasonable use of them. Use for the purposes of interstate transportation is a reasonable use, the control of which the people have vested in the federal government; the states may not unreasonably interfere with such use; and an interference, not necessary to the safety or protection of the roads, which burdens interstate commerce and excludes a large part of it from using the roads, must be condemned as unreasonable. The highways of interstate commerce must not be unreasonably obstructed by the states, whether they be natural highways such as rivers, or whether they be artificial highways which the people themselves have constructed and dedicated to the purposes of commerce.

We have considered the argument that the agricultural interests of the state are served by the trucks which come to the fields for the delivery of fertilizer and the collection of vegetables for market, and we realize that this involves the use of roads other than the standard concrete highways; [fol. 89] but we cannot say that the statute is unreasonable as applied to such roads. The argument that the number of heavy trucks using such roads is few and the damage to them from such occasional use is inconsequential, is a matter for the consideration of the state legislature. Only with respect to the highways specifically mentioned and those federal aid highways of standard concrete or standard concrete and asphalt construction can we pronounce the provisions of the act unreasonable; and only as to them will its enforcement be enjoined as an unreasonable burden on interstate commerce.

Decree Accordingly.

[fol. 90] IN UNITED STATES DISTRICT COURT

[Title omitted]

FINDINGS OF FACT AND CONCLUSIONS OF LAW—Filed January 20, 1937

In the above entitled case, the Court finds the facts as follows:

1. That the plaintiffs in this suit are individuals, partnerships, and corporations having their residences in the States of South Carolina, North Carolina and Georgia, and that the defendants are officers either of the State of South Carolina or of a county or municipality thereof and as such are charged with the duty of enforcing the South Carolina law known as Act No. 259 of 1933, Regulating and Limiting the Use of Public Highways in South Carolina by Motor Trucks.

2. That the plaintiffs Barnwell Brothers, Incorporated; Poole Transportation, Incorporated; Horton Motor Lines, Incorporated; National Convoy and Trucking Company; Carolina Transfer and Storage Company; Dewey D. Maner, and Akers and Hudson Motor Lines, Incorporated, are common and contract carriers engaged in the transportation of property in interstate commerce by motor truck throughout the Eastern and Southeastern portion of the United States. That the plaintiffs Merchants Fertilizer Company; Planters Fertilizer and Phosphate Com-
[fol. 91] pany; South Carolina Produce Association; and William C. Geraty Company are engaged in extensive operations requiring the use and employment of motor transportation in interstate commerce.

3. That the amount in controversy in this suit, as to each of the plaintiffs, exclusive of interest and costs, exceeds the sum and value of three thousand dollars.

4. That the intervening railway companies have been allowed to intervene because they are engaged in interstate commerce in the state of South Carolina and are affected by the competition of the truck companies which they contend is based in part upon an unlawful use of the roads.

5. That the Interstate Commerce Commission has been permitted to intervene because of its contention that the regulation of size and width of motor vehicles has been intrusted to it by the Motor Carriers Act of 1935 and that the South Carolina statute regulating size and weight of motor vehicles has been superseded thereby.

6. That the enforcement of the provisions of Act No. 259 of the General Assembly of South Carolina, approved April 28, 1933, 38 Stats. 340, limiting the gross weight of trucks using the highways of that state to 20,000 pounds, pro-

viding that a tractor-semi-trailer combination shall be treated as one vehicle in applying the gross load limitation, and limiting the width of trucks to 90 inches, will greatly burden interstate commerce by trucks using the roads of said state.

7. That the interstate motor transportation industry has grown and developed in the past five years to be an established industry. That standard equipment operated by motor carriers in interstate commerce consists of trucks [fol. 92] and tractor-semi-trailers, and that 85 per cent to 90 per cent of this equipment is 96 inches in width and weighs more than 20,000 pounds gross; that enforcement of the South Carolina law would result in the obstruction of the flow of interstate commerce into, out of, and across the State of South Carolina because it would necessitate the transferring of commodities to and from trucks of the size and weight prescribed by said law, with a consequent increase in the cost of interstate transportation and a discrimination against South Carolina shippers and others shipping into and across South Carolina, and would render it practically impossible for a large part of interstate commerce now conducted by truck to use the roads of that state.

8. That weight and size of motor trucks are important factors in the fixing of interstate rates and that enforcement of the South Carolina law under consideration would necessitate increase of rates for transportation of commodities into, out of, and across South Carolina, would prevent the interchange of motor truck equipment and the establishment of through routes and joint rates on shipments moving into, out of, and across South Carolina.

9. That the development of motor truck transportation has been of great benefit to the textile industry because it has permitted manufacturers to supply customers with commodities in smaller quantities at more frequent intervals, without increased cost, and the customers' demand for this service necessitates the use of motor trucks. That the standard motor truck supplying this service are 96 inches in width and when properly loaded weigh more than 20,000 pounds gross. That enforcement of the South Carolina law would cause delay in transit and increase the cost of interstate transportation of textiles into, out of, and across

the State of South Carolina and would result in discrimina-
[fol. 93] tion against South Carolina textile mills in favor of competitors in other states.

10. That the continued operation and development of large-scale truck farming and the shipping of vegetables out of South Carolina in interstate commerce is dependent upon the peculiar service rendered by motor trucks in the transportation of produce from roadside farms to large and distant markets quickly and economically. That truck farmers and vegetable growers depend, for interstate transportation of their produce, on motor trucks operated not by the farmers themselves but by transportation companies whose trucks move about the country with the seasons. That these trucks, and particularly the refrigerator trucks upon which the farmers depend for shipment of perishables, exceed the size and weight limitations prescribed by the law of South Carolina. That enforcement of the said law would discriminate against South Carolina truck farmers and vegetable growers in favor of their competitors in other states and would injure if not destroy this industry in South Carolina.

11. That a large amount of fertilizer is shipped out of South Carolina in interstate commerce by motor truck and delivered to farmers at the field for immediate use; that this service cannot be rendered by other transportation agencies; that the product has a low value in proportion to weight, and enforcement of the South Carolina law would increase the cost of fertilizer to consumers and jeopardize the fertilizer industry in South Carolina.

12. That interstate movement of household furniture and effects by motor truck has developed with the advent of good roads; that railroads do not offer adequate service and do not compete with trucks in this business; that because of the weight and bulk of furniture it is necessary that loads exceed the size and weight limitations prescribed by the law of South Carolina; that enforcement of the
[fol. 94] South Carolina law would increase the cost and curtail the efficiency of this service to the public.

13. That the business of shipping lumber in interstate commerce from mills in South Carolina has developed with the advent of good roads and motor trucks; that motor transportation enables the mills of South Carolina to meet

the demand of customers for delivery of lumber at the point of use; that if the South Carolina law is enforced the interstate movement of this commodity by truck will practically cease and South Carolina lumber mills will be forced to ship by rail at increased cost of transportation and serious curtailment of service both in time and convenience to the consuming public.

14. That with the advent of good roads and motor truck transportation the furniture manufacturers have changed their method of doing business and have commenced shipping large quantities of furniture in interstate commerce by motor truck; that this method of transportation is now important because customers demand quick shipments in small lots and this service cannot be supplied by railroads; that the transportation of this commodity necessitates the use of trucks 96 inches in width and weighing more than 20,000 pounds gross; that enforcement of the South Carolina law under consideration would interfere with the traffic and would result in discrimination against manufacturers shipping furniture out of and across South Carolina in favor of their competitors.

15. That the port of Charleston, S. C., handles a large volume of inbound and outbound traffic moving in interstate and foreign commerce; that in recent years the percentage of this interstate and foreign traffic moving to and from the port of Charleston in motor trucks has steadily [fol. 95] increased, and at the present time the records of three of the important inter-coastal steamship lines operating in and out of Charleston reflect, respectively, 24 per cent, 58 per cent, and 40 per cent of all tonnage moving by truck; that shippers and consignees rely upon and demand the service now offered by motor trucks because of advantageous rates and because motor trucks offer transportation facilities which cannot be duplicated by other transportation agencies; that motor trucks now operating in and out of Charleston and carrying cargoes in interstate commerce to and from the port are of the standard type, 96 inches in width and weighing more than 20,000 pounds gross; that many of the commodities moving in interstate commerce by motor truck to and from the port of Charleston cannot be profitably transported in trucks within the weight and size limitations prescribed by the law of South Carolina; that enforcement of the South

Carolina law would result in the diversion of large cargoes, normally consigned to the port of Charleston, to other competing ports in other states along the Atlantic seaboard.

16. That flour is one of the major commodities moving into the port of Charleston and that a large part of it is transported in interstate commerce by motor truck; that truck transportation of this commodity is necessary because speed of delivery is essential to prevent deterioration and meet the demand of customers and also because numerous small communities are dependent on shipments in smaller quantities than can be profitably shipped by rail; that the average pay load of a motor vehicle hauling flour is 20,000 pounds, making a gross load of about 30,000 pounds; that enforcement of the law under consideration will increase the cost of transportation.

[fol. 96] 17. That there are approximately 60,000 miles of roads of all kinds in the State of South Carolina; that 5,948 miles of these are embraced in the state highway system; and that 2,417 miles thereof are of standard pavement, not materially different from pavement of which other federal aid highways *is* constructed. All except about 100 miles of the standard pavement highways are 18 or 20 feet in width, 7½ or 8 inches thick at the edges and 6 or 6½ inches thick at the center. All such pavement is capable of sustaining without injury a wheel load of 8,000 to 9,000 pounds or an axle load of 16,000 to 18,000 pounds, depending upon whether the wheels are equipped with high pressure or low pressure pneumatic tires.

18. That the said standard paved roads form a well connected system of highways which have been improved with federal funds as a part of a national system; that they comprise the best system of highways in the southeastern part of the United States, and are capable of carrying the commerce which has been developed by modern truck transportation; that federal highways numbered 1, 15-A, 17, 21, 25, 29 and 52 comprise the great arteries of interstate commerce through the state of South Carolina, are of standard concrete paving as above described, with the exception of a few short stretches, a few miles in length which are not of sufficient importance to justify the denial of the use of these arteries of commerce for the purpose for which they were constructed.

19. That the bridges now being designed and constructed in the state of South Carolina conform to the specifications prescribed by the Bureau of Roads of the Department of Agriculture and are capable of carrying loads of 16,000 pounds per axle, and that those that were not so designed [fol. 97] in the past and are now considered weak have been strengthened to meet the demands of present day traffic; that there are a few old bridges on the main arterial highways above mentioned and also on the other roads paved with standard concrete paving which were not designed for carrying trucks of greater weight than 20,000 pounds and a few which are too narrow to permit the use of trucks 96 inches in width, and as to these the provisions of the law cannot be deemed unreasonable; but that, as these bridges are few in number and it would be unreasonable to exclude interstate commerce from the entire highway system on their account, such of them as are considered by the State Highway Department to be unsafe for use by trucks of greater width than 90 inches or greater weight than 20,000 pounds should be so marked so as to afford ample warning that the use of the bridge is forbidden to trucks of that size and weight.

20. That the usual vehicle used by motor transportation companies in interstate commerce is a tractor-semi-trailer combination, 96 inches wide and carrying a pay load of 10 tons or 20,000 pounds and the size and weight of such vehicles are determining factors in the fixing of rates for interstate transportation by motor truck. That the effect on the highways and bridges of the state of South Carolina of a tractor-semi-trailer combination is not different from the effect produced by two vehicles of equal weight, one following the other; and that the provision requiring that the tractor-semi-trailer combination be considered as one unit for the application of the weight limitation is unreasonable.

21. That the rigid type highways of the state of South Carolina are typical of the design of the highways of that type in a great majority of the states in the United States today, and that they will permit axle loads of 16,000 to [fol. 98] 18,000 pounds to be hauled thereon without damage to said highways. That they have been subjected to the traffic of heavy trucks with gross weights in excess of 20,000 pounds and other vehicles since 1930 and are now being subjected to such traffic and there is no evidence of

deterioration thereof as result of such traffic except in isolated instances due to unusual conditions.

22. That gross weight of vehicles is not a factor to be considered in the preservation of concrete highways, but wheel or axle weight; that vehicles engaged in interstate commerce are so designed and the pressure of their weight is so distributed by their wheels and axles that heavy gross loads can be carried over concrete roads without damage to the concrete surface; and that a gross weight limitation of 20,000 pounds is unreasonable as a means of preserving the highway.

23. That the gross load limitation has no reasonable relationship to the safety of the public using the highways; that the modern type vehicles engaged in interstate commerce are safer on the highways than the overloaded light trucks which would result from enforcement of the gross load limitations, because they make possible a better distribution of weight and have better braking equipment.

24. That the width limitation of 90 inches is unreasonable when applied to the standard concrete highways of the state and the arteries of interstate commerce heretofore mentioned, in view of the fact that all other states in the Union permit a width of 96 inches, this is the standard width of trucks engaged in interstate commerce, and the enforcement of the 90 inch limitation would exclude from the highways a large portion of the equipment now used in [fol. 99] interstate commerce without material advantage to the safety or preservation of the highways.

25. That only four other states in the entire Union prescribe a gross weight limit as low as 20,000 pounds; and such a limit is contrary to the recommendation of the American Association of State Highway Officials; that the National Conference on Street and Highway Safety in the U. S. Department of Commerce has recommended for adoption a uniform act limiting size and weight, in which weight is limited with respect to wheel and axle loads and width is limited to 96 inches; that gross weight is of importance in a modern highway system only in connection with the use of bridges, and modern bridges are so constructed that a gross weight limitation of 20,000 pounds is unreasonable with respect to them.

26. That the provisions of the statute limiting gross weight of vehicles to 20,000 pounds, providing that the tractor-semi-trailer combination shall be considered as one unit for applying this limitation, and limiting the width of vehicles to 90 inches, are unreasonable restrictions when applied to the highways heretofore mentioned which constitute the great arteries of interstate commerce of the state and the other standard concrete highways constituting a part of the state highway system; and that as applied to said highways they constitute an unreasonable restriction and burden on interstate commerce; but that they are not unreasonable as applied to other roads of the state.

27. That the enforcement of the said provisions of the act against the plaintiffs while they are engaged in interstate commerce would in large measure destroy their interstate business, would subject them to ruinous penalties if they [fol. 100] should attempt to carry on said business, and would otherwise inflict upon them great and irreparable injury.

Conclusions of Law

The Court reaches the following conclusions of law:

1. That the said provisions of Act No. 259 of 1933 of the General Assembly of South Carolina are an unreasonable burden upon interstate commerce when applied to trucks operating upon highways 1, 15-A, 17, 21, 25, 29 and 52 and the other standard concrete highways which form a part of the state highway system, except as to bridges not designed for supporting heavy traffic as set forth in the foregoing findings of fact.

2. That the said provisions of the act cannot be condemned as an unreasonable burden upon interstate commerce when applied to the other roads and highways of the state.

3. That Congress has not assumed to control size and weight of vehicles by the Motor Carriers Act of 1935.

4. That the provisions of the Act 259 of South Carolina of 1933 are not violative of the due process or equal protection clauses of the 14th Amendment.

5. That plaintiffs are entitled to injunctive relief restraining defendants from enforcing against plaintiffs, while plaintiffs are engaged in interstate commerce on the arteries

of interstate commerce heretofore described and the other standard concrete highways of the state of South Carolina, the provisions aforesaid of Act 259 of South Carolina of 1933 limiting gross weight of vehicles to 20,000 pounds, providing that tractor-semi-trailer combinations shall be counted as one unit in applying gross weight limitations, and limiting width to 90 inches.

[fol. 101] John J. Parker, U. S. Circuit Judge, Fourth Circuit. Elliott Northcott, U. S. Circuit Judge, Fourth Circuit. J. Lyles Glenn, U. S. District Judge, Eastern and Western Districts of South Carolina.

[fol. 102] IN THE DISTRICT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF SOUTH CAROLINA.

BARNWELL BROS., INC., a North Carolina Corporation, et al., Plaintiffs,

vs.

SOUTH CAROLINA STATE HIGHWAY DEPARTMENT, SOUTH CAROLINA PUBLIC SERVICE COMMISSION, et al., Defendants

DECREE—Filed January 20, 1937

This cause coming on for final hearing and being heard by the undersigned special court of three judges constituted pursuant to section 266 of the Judicial Code, and the Court having made findings of fact and announced its conclusions of law as appears in the written Findings of Fact and Conclusions of Law filed herewith; now, therefore, for the reasons set forth in the written opinion herewith filed, it is ordered, adjudged and decreed as follows:

(1) That the defendants, their agents and servants, be and they hereby are, restrained and enjoined from enforcing against the plaintiffs while they are engaged in interstate commerce on the highways of the State of South Carolina numbered 1, 15-A, 17, 21, 25, 29, and 52, or on such portions of other federal aid highways as may be of standard concrete or concrete and asphalt construction, any provision of Act No. 259 of the General Assembly of South Carolina limiting the gross weight of trucks on highways to 20,000

pounds, or providing that a tractor-semi-trailer combination shall be considered a single unit for the purpose of determining weight and thereby limiting the gross weight of such combination to 20,000 pounds, or limiting the width of [fol. 103] vehicles to 90 inches, if the vehicle does not exceed 96 inches in width.

(2) That the provisions of this injunctive order shall not extend to bridges on the highways mentioned in the preceding paragraph where such bridges have not been constructed with sufficient strength to support the heavy trucks of modern traffic or are too narrow to accommodate such traffic safely, provided that the State Highway Department shall erect at each end of any such bridge a proper notice of sufficient size and character to give ample warning that the use of the bridge is forbidden by trucks exceeding the weight or width limit, and further provided that the proper authorities shall take the necessary steps to enforce the law against the use of such bridges by such trucks.

(3) That the application to enjoin the enforcement of the act with respect to the other roads and bridges of the state be and same is hereby denied.

(4) That plaintiffs recover of defendants their costs in this suit to be taxed by the Clerk.

(5) That jurisdiction of this cause be retained for the purpose of making any such change or modification with respect to paragraphs one or two hereof as may hereafter appear to be proper in the premises.

Done at Charlotte, North Carolina, this the 20th day of January, 1937.

John J. Parker, U. S. Circuit Judge, Fourth Circuit. Elliott Northcott, U. S. Circuit Judge, Fourth Circuit. J. Lyles Glenn, U. S. District Judge, Eastern and Western Districts of South Carolina.

[fol. 104] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER EXTENDING TERM—Filed January 20, 1937

The Court having this day delivered its opinion in the cause and submitted to counsel for the respective parties

its findings of fact and conclusions of law, together with the decree, all of which it proposes to file; and

It appearing that counsel have not had sufficient time to consider the same and file any objections or exceptions thereto, as they may be advised, before the Court recesses;

It is Ordered That this term of this Court be extended for sixty days, so as to continue the jurisdiction of this Court over the cause and all matters relating thereto, including any reconsideration or modification of said findings of fact, conclusions of law, and decree to be entered thereon, and that the time within which counsel for any party may file any objections or exceptions to the same, or take any other steps properly incident to any appeal to the Supreme Court of the United States, is hereby likewise extended for sixty [fol. 105] days, except as otherwise provided by the applicable statute.

John J. Parker, United States Circuit Judge. Elliott Northcott, United States Circuit Judge. J. Lyles Glenn, United States District Judge.

January 20, 1937.

[fol. 106] In United States District Court

[Title omitted]

Order Extending Term—Filed February 13, 1937

Upon consideration of the attached petition and upon motion of Steve C. Griffith, Esq., and J. B. S. Lyles, Esq., Solicitors for all the defendants, and it appearing to the Court that good cause for this extension has been shown,

It is Ordered That defendants in the above entitled suit, petitioners herein, be and they are hereby granted an extension of thirty days—that is, to and including March 16, 1937, within which to file their præcipe and statement of evidence, as required by Rule 88 of this Court.

J. Lyles Glenn, United States District Judge for the Eastern District of South Carolina.

February 9th, 1937.

[fol. 107] IN UNITED STATES DISTRICT COURT

[Title omitted]

ASSIGNMENT OF ERRORS AND PRAYER FOR REVERSAL—Filed February 25, 1937

Come now all of the defendants (including intervenors) above named, and, with their petition for appeal contemporaneously filed herewith submit the following assignment [fol. 108] of errors, on which they will rely on their appeal to the Supreme Court of the United States from the final decree entered on the 20th day of January, 1937, by said District Court in the above entitled cause.

(With Respect to the Motion to Dismiss)

1. The District Court erred in denying defendants' motion to dismiss the bill.

2. The District Court should have held, on defendants' motion to dismiss the bill, that the facts alleged in the bill, taken in connection with facts judicially known to the Court, failed to establish that the contested weight and width limitations of the South Carolina statute were unreasonable and did not bear a direct and substantial relation to the preservation of the highways and to the safety of other travelers making a normal use thereof, and should have held that they affected interstate commerce only incidentally, and should have dismissed the bill.

(With Respect to Findings of Fact)

3. The District Court erred in its finding of fact numbered 17, wherein it found, with reference to the 2417 miles of standard pavement roads in South Carolina, that "All such pavement is capable of sustaining without injury a wheel load of 8,000 to 9,000 pounds or an axle load of 16,000 to 18,000 pounds, depending upon whether the wheels are equipped with high pressure or low pressure pneumatic tires.", in that such finding is not justified by the evidence.

4. The District Court erred in its finding of fact numbered 18, wherein it found, with reference to the standard paved roads of South Carolina, that they "are capable of carrying the commerce which has been developed by modern truck transportation; that federal highways numbered

1, 15-A, 17, 21, 25, 29 and 52 comprise the great arteries of interstate commerce through the state of South Carolina, are of standard concrete paving as above described, with [fol. 109] the exception of a few short stretches, a few miles in length which are not of sufficient importance to justify the denial of the use of these arteries of commerce for the purpose for which they were constructed.", in that (1) such finding is not justified by the evidence, and (2) there is no substantial or specific evidence to show that the weak sections of roads excepted in this finding are either few in number or only a few miles each in length.

5. The District Court erred in its finding of fact numbered 19, wherein it found, with reference to bridges on the highway system of South Carolina, "that there are a few old bridges on the main arterial highways above mentioned and also on the other roads paved with standard concrete paving which were not designed for carrying trucks of greater weight than 20,000 pounds and a few which are too narrow to permit the use of trucks 96 inches in width, and as to these the provisions of the law cannot be deemed unreasonable; but that, as these bridges are few in number and it would be unreasonable to exclude interstate commerce from the entire highway system on their account, such of them as are considered by the State Highway Department to be unsafe for use by trucks of greater width than 90 inches or greater weight than 20,000 pounds should be so marked so as to afford ample warning that the use of the bridge is forbidden to trucks of that size and weight.", in that (1) the evidence fails to establish that the old bridges, not designed for carrying trucks of greater weight than 20,000 pounds and too narrow to permit the use of trucks 96 inches in width, were few in number; and (2) the evidence does not justify the Court in assuming the prerogative of imposing conditions upon which the sovereign State may enforce an admittedly valid statute.

6. The District Court erred in its finding of fact numbered 20 wherein it found "That the effect on the highways and bridges of the state of South Carolina of a tractor- [fol. 110] semi-trailer combination is not different from the effect produced by two vehicles of equal weight, one following the other; and that the provision requiring that the tractor-semi-trailer combination be considered as one unit

for the application of the weight limitation is unreasonable.", in that such finding is not justified by the evidence.

7. The District Court erred in its finding of fact numbered 21, wherein it found "That the rigid type highways of the state of South Carolina are typical of the design of the highways of that type in a great majority of the states in the United States today, and that they will permit axle loads of 16,000 to 18,000 pounds to be hauled thereon without damage to said highways. That they have been subjected to the traffic of heavy trucks with gross weights in excess of 20,000 pounds and other vehicles since 1930 and are now being subjected to such traffic and there is no evidence of deterioration thereof as a result of such traffic except in isolated instances due to unusual conditions.", in that (1) such finding is not justified by the evidence, and (2) there is no material or definite evidence in the record that such highways have been subjected to the traffic of heavy trucks with gross weights in excess of 20,000 pounds and other vehicles since 1930; and (3) there is a failure of evidence to prove that there was no substantial deterioration of such highways as the result of such excessively heavy traffic.

8. The District Court erred in its finding of fact numbered 22, wherein it found "That gross weight of vehicles is not a factor to be considered in the preservation of concrete highways, but wheel or axle weight; that vehicles engaged in interstate commerce are so designed and the pressure of their weight is so distributed by their wheels and axles that heavy gross loads can be carried over concrete roads without damage to the concrete surface; and that a gross weight limitation of 20,000 pounds is unreasonable as a means of preserving the highways.", in that [fol. 111] (1) such finding is not justified by the evidence, and (2) a gross weight limit is reasonable and easy of enforcement.

9. The District Court erred in its finding of fact numbered 23, wherein it found "That the gross load limitation has no reasonable relationship to the safety of the public using the highways; that the modern type vehicles engaged in interstate commerce are safer on the highways than the overloaded light trucks which would result from enforcement of the gross load limitations, because they make

possible a better distribution of weight and have better braking equipment.", in that (1) such finding is not justified by the evidence, and (2) the Court wrongfully assumes, as a premise of its finding, that light trucks will be overloaded in violation of the law.

10. The District Court erred in its finding of fact numbered 24, wherein it found "That the width limitation of 90 inches is unreasonable when applied to the standard concrete highways of the state and the arteries of interstate commerce heretofore mentioned, in view of the fact that all other states in the Union permit a width of 96 inches, this is the standard width of trucks engaged in interstate commerce, and the enforcement of the 90 inch limitation would exclude from the highways a large portion of the equipment now used in interstate commerce without material advantage to the safety or preservation of the highways.", in that the finding is not justified by the evidence.

11. The District Court erred in its finding of fact numbered 26, wherein it found that the weight and width limits imposed by the statute " * * * are unreasonable restrictions when applied to the highways heretofore mentioned which constitute the great arteries of interstate commerce of the state and the other standard concrete highways constituting a part of the state highway system; and that as applied to said highways they constitute an unreasonable restriction and burden on interstate commerce; * * *", in that such finding is not justified by the evidence.

[fol. 112] 12. The District Court erred in its finding of fact numbered 27, wherein it found "That the enforcement of the said provisions of the act against the plaintiffs while they are engaged in interstate commerce would in large measure destroy their interstate business, would subject them to ruinous penalties if they should attempt to carry on said business, and would otherwise inflict upon them great and irreparable injury", in that such finding is not justified by the evidence.

(With Respect to Findings of Fact in Opinion)

13. The District Court erred in finding as a fact in its Opinion (typed page 13), with reference to the effect of heavy traffic on the streets of towns and cities of the State,

that "There is no showing, however, that there has been substantial damage to any streets as a result of the heavy traffic which has been passing over them for the past five years, and no reasonable ground to apprehend such damage in the future", in that (1) such finding is not justified by the evidence, (2) there is no substantial or definite evidence negativing substantial damage to such streets, and (3) the Court shifts the burden of proof from plaintiffs to defendants.

14. The District Court erred in finding as a fact in its Opinion (typed page 21) "Here we have a connected system of standard highways of the finest character; and there is no reasonable relation between the limitations complained of and the preservation or safety of such highways. In the light of experience and of scientific knowledge, there is no ground for reasonable difference of opinion as to the gross load limitation of 20,000 pounds not being necessary for the protection of such roads themselves, and there is even less justification for the requirement that the tractor-semi-trailer combination be counted one unit for the purpose of computing gross load. So far as safety is concerned, the evidence shows clearly that there is less danger to traffic from the standard trucks of interstate com- [fol. 113] merce than from smaller trucks carrying a load for which they are not designed; and certainly there is not enough advantage in a 90 over a 96 inch width to justify the exclusion from an 18 or 20 foot highway of trucks of a width permitted by all other states of the Union", in that (1) such finding is not justified by the evidence, and (2) is contrary to the light of experience and scientific knowledge in such respect; and (3) the Court assumes that smaller trucks will be overloaded in violation of law.

(With Respect to Facts That Should Have Been Found)

15. The District Court should have found as a fact that the contested weight and width limitations of the South Carolina statute were reasonable and bore a direct and substantial relation to the preservation of the highways and to the safety of other travelers making a normal use thereof, and that they affected interstate commerce only incidentally.

16. The District Court should have found as a fact that there was a substantial and material difference of opinion

and judgment on the factual question whether the contested weight and width limitations of the South Carolina statute were reasonable and bore a direct and substantial relation to the preservation of the highways and the safety of other travelers making a normal use thereof, and affected interstate commerce only incidentally.

17. The District Court should have found as a fact that the contested weight and width limitations of the South Carolina statute were not an unreasonable burden on interstate commerce, and affected it only incidentally.

18. The District Court should have found as a fact that the highway system of South Carolina was constructed by the State, as its own property, with its own funds, excepting only those obtained from federal aid, and was intended, designed and constructed only for passenger automobiles and light traffic in trucks, and that the enormous increase in heavy truck traffic, which has since developed, and the use of the highways for substantial and heavy traffic in [fol. 114] heavy trucks, has and will materially damage them.

(With Respect to Conclusions of Law)

19. The District Court erred in its conclusion of law numbered 1, that the weight and width limitations of the South Carolina statute are an unreasonable burden on interstate commerce when applied to trucks operating on the designated and standard concrete highways of South Carolina, in that the evidence and facts judicially known show such limitations to be a valid exercise of the police power of the State as to such designated and standard concrete highways, and that they affect interstate commerce only incidentally.

20. The District Court erred in its conclusion of law numbered 5, to the effect that plaintiffs are entitled to injunctive relief restraining defendants from enforcing the weight and width limitations of the statute while plaintiffs are engaged in interstate commerce upon the designated highways and standard concrete highways of South Carolina, in that (1) the evidence and facts judicially known show such limitations to be a valid exercise of the police power of the State as to such designated and standard concrete highways, affecting interstate commerce only inci-

dentally, and (2) the Court should have limited the injunctive relief to trucks not exceeding the weight limits which the Court itself found to be reasonable and proper maximum weight limits.

21. The District Court should have concluded that the contested weight and width limitations of the South Carolina statute were a valid exercise of the police power of South Carolina and not an unreasonable burden on interstate commerce as to plaintiffs.

22. The District Court having concluded (conclusion of law numbered 4) that the weight and width limitations of the South Carolina statute are not violative of the due [fol. 115] process and equal protection clauses of the Fourteenth Amendment, erred in concluding (conclusion of law numbered 1) that the same limitations, in the same circumstances, are violative of the commerce clause of the Federal Constitution, in that the latter conclusion is repugnant to and inconsistent with the former.

23. In its consideration of the evidence and facts within judicial knowledge, the District Court throughout the case misapplied the rule that plaintiffs bore the burden of proving that the contested weight and width limitations of the South Carolina statute were unreasonable and arbitrary and had no direct or substantial relation to the preservation of the highways or the safety of others making a normal use thereof, and cast upon the defendants the burden of proving the negative of such propositions.

(With Respect to Decree)

24. The District Court erred in enjoining defendants (Decree, section 1) from enforcing against plaintiffs while engaged in interstate commerce on the highways of the State of South Carolina numbered 1, 15-A, 17, 21, 25, 29 and 52, or on such portions of other federal aid highways as may be of standard concrete or concrete and asphalt construction, the contested weight and width limitations of the South Carolina statute, in that they are a valid exercise of the police power of South Carolina, affecting interstate commerce only incidentally, and are not an unreasonable burden on such commerce.

25. The District Court erred in enjoining defendants (Decree, section 1) from enforcing against plaintiffs while

engaged in interstate commerce on the highways of the State of South Carolina numbered 1, 15-A, 17, 21, 25, 29 and 52, or on such portions of other federal aid highways as may be of standard concrete or concrete and asphalt construction, the contested weight and width limitations of the South Carolina statute, without limiting the protection of the injunction to trucks with a wheel load not exceeding [fol. 116] 8,000 to 9,000 pounds, or an axle load not exceeding 16,000 to 18,000 pounds, depending upon whether the wheels are equipped with high pressure or low pressure pneumatic tires, in accordance with its finding of fact numbered 17.

26. The District Court, having found as a fact in its Opinion (typed page 12), with reference to the development of modern transportation units, that "* * * with this modern equipment it is possible to move a heavily loaded truck over the highway with no greater injury to the modern standard pavement than would result from the movement over it of an ordinary passenger car.", erred in not limiting the protection of its injunction to modern equipment of such a character and having such non-injurious effect on the standard pavement.

27. The District Court erred in substituting its judgment as to the weight and width limits of trucks necessary to preserve and promote safety on highways numbered 1, 15-A, 17, 21, 25, 29 and 52, and on such portions of other federal aid highways as may be of standard concrete or concrete and asphalt construction, for the judgment of the Legislature of South Carolina in this respect, when the evidence showed a dispute among fairminded men as to necessary and proper weight and width limits, thereby usurping the prerogative of the State of South Carolina.

28. The District Court erred (Decree, section 2) in conditioning the right of the State of South Carolina to enforce its statute (admittedly valid) as to bridges too weak and too narrow, upon the erection of signs at such bridges, and the enforcement of the valid law with reference thereto, thereby usurping the prerogative of the sovereign State of South Carolina.

29. The District Court erred in its Decree (section 1) in that the effect of the injunction granted is that the sovereign State of South Carolina must classify the highways of the

State Highway System for the purpose of enforcing its valid police regulations, first, as between federal aid high- [fols. 117-127] ways and non-federal aid highways; second, as between specified highways extending as units across the State and other highways of the State Highway System; and, third, as between sections of highways paved with standard pavement and other sections of the same highways of different construction.

30. The District Court erred in not holding that the State of South Carolina built its highways with its own money, except for some funds received from federal aid, that it owns them and has the right to use them, and has the absolute right to fix the limits on weight and width of vehicles which may be operated thereon; and that the District Court was without authority to supplant the judgment of the General Assembly of South Carolina as to the proper weight and width limits of vehicles using such highways.

Prayer for Reversal

For which errors the defendants pray that the said decree of the District Court of the United States for the Eastern District of South Carolina, dated and filed January 20, 1937, be reversed, that the injunction granted against defendants be vacated, that the bill of complaint be dismissed, and for costs.

John M. Daniel, Attorney General; J. Ivey Humphrey, Assistant Attorney General; M. J. Hough, Assistant Attorney General; Eugene S. Blease and Steve C. Griffith, Solicitors for Original Defendants. Thomas W. Davis, Douglas McKay, M. G. McDonald and J. B. S. Lyles, Solicitors for Intervening Defendants.

February 4, 1937.

[fol. 128] In United States District Court

[Title omitted]

Statement of the Evidence and Proceedings Before the Court—Filed February 25, 1937

The specially constituted District Court, composed of Hon. John J. Parker, United States Circuit Judge, Hon. Elliott Northcott, United States Circuit Judge, and Hon.

J. Lyles Glenn, United States District Judge, convened at Columbia, S. C., on November 30, 1936, and the following proceedings, not otherwise appearing of record, were held.

Motions were submitted for intervention on behalf of the Interstate Commerce Commission and Marlboro Oil Company, as parties plaintiff, and on behalf of the National Association of Public Service Commissioners, Atlantic Coast Line Railway Company, Receivers of Seaboard Air Line Railway, and Charleston & Western Carolina Railway Company, as parties defendant, based on petitions, all of which have been duly filed. The Court took these under consideration, but announced that in the meantime it would allow each of the solicitors presenting the motions to appear amicus curiae. Since all of these motions and petitions were in proper form and no question concerning them is raised on the appeal, it is stipulated that they are not to be printed.

[fol. 129] Motion to Dismiss

Oral argument was then held at length on the defendants' Motion to Dismiss. At the conclusion thereof the Court made the following ruling:

Judge Parker: We indicated we would be giving consideration to all the questions that have arisen so far, and I will announce our conclusions. In the first place, we think that the petitioners who have asked to intervene should be allowed to intervene, except the Boards represented by Mr. Benton. As to them, we will allow Mr. Benton to appear amicus curiæ to present his contentions. Shippers and railroad companies who have asked to intervene will be allowed to intervene.

As to the scope of the hearing, we are of the opinion that in order that the case may be presented in its entirety on an appeal to the Supreme Court, that this Court of three judges should reconsider all the questions heretofore determined by the District Judge and give our decision on the bill as filed, so that when appeal is taken by either side to the Supreme Court of the United States, the Supreme Court may have the entire case before them and not have the case in piece-meal. We will reconsider all the questions arising on the bill.

As to the question of the effect of the Motor Carrier Act, we are of the opinion that the effect of that Act is not that

Congress has occupied the field with respect to size and weight. We don't think that that Act effects the question before the Court at all. We interpret the Act that Congress has expressly refused to enter the field in size and weight, as a matter of regulation for the time being. As to the power of Congress to enter that field, we express no opinion.

Now, with respect to the question of taking testimony, we are of the opinion that testimony should be taken bear- [fol. 130] ing upon the reasonableness of the Act as it affects interstate commerce. We are indicating no opinion as to whether the Act is reasonable or unreasonable. We think that this Court should have the benefit of testimony as to the allegations of the bill that the Act is an unreasonable burden upon interstate commerce, particularly in view of what the Supreme Court said in the Morris versus Duby case: "Regulation as to the method of use, therefore, necessarily remains with the State and cannot be interfered with unless the regulation is so arbitrary and unreasonable as to defeat the useful purposes for which Congress has made its contribution to bettering the highway systems of the Union and to facilitating the carrying of the mails over them."

In other words, we will pass upon the question as to whether the Act constitutes an unreasonable burden upon interstate commerce, and we are of the opinion that testimony should be addressed to that question and that question alone, and we see no reason why any great volume of testimony need be taken, or we see no reason why the taking of testimony should consume very much time.

One other question remains, and that is whether we are to hear the case on the application for interlocutory injunction or hear it finally now, and we see no reason for hearing the application for interlocutory injunction and then having another hearing on whether we are going to grant final injunction of it. The Supreme Court has said time and time again that the discretion of the Court in granting or refusing an interlocutory injunction in cases of this character will not be reviewed in the absence of abuse by the Court. Manifestly, it is of importance to everybody concerned in this case that the question be finally decided by the Supreme Court. The only way to get a final decision by the Supreme Court is by final judgment by this Court [fol. 131] and the findings and appeal to the Supreme Court, and then the Supreme Court can pass on all the questions

involved and finally settle the matter. This has been in litigation now for about three years. It is time it was brought to an end, and we see no reason why you shouldn't put your testimony in and let us finally determine the case.

It was then stipulated and agreed in open court by all counsel that the hearing should be both interlocutory and final, and that the Court should render a final decree in the case.

Mr. Ross: If Your Honor please, may I ask a question for the purpose of clearing up our own status in the proceeding? The Commission intervened when it seemed to them the proceedings were limited to the question of supersession, and the possible question of the constitutionality of the Federal Act. Of course, I understand under the Courts' ruling the whole matter was opened up. The Commission has not felt that it was interested to the point of participating in the hearing that was confined entirely to the question of burden on interstate commerce or unreasonableness of this Act.

Now, I think I should say to the Court we brought certain witnesses and testimony here, thinking that their testimony would be proper in connection with a consideration of those matters; more or less a joint proposition on the question of construction of the Act to some extent, on the question of constitutionality to some extent, but as I understand the Courts' decision now, the complaint has in effect been dismissed as to the allegation of supersession.

Judge Parker: No, I don't think I meant to convey that impression. What I meant to convey was this, I am telling you what the Court thinks about that question of law. When we write the opinion, unless we change our mind, we are going to interpret the Act and say the Act does not apply to size and weight. The Interstate Commerce Commission [fol. 132] is a party to the suit, and the Interstate Commerce Commission might desire to contest that holding in the Supreme Court.

Mr. Ross: And it would still be open to us to present testimony that might be competent, that might still go to the Act. We would be free to present that?

Judge Parker: I suggest you do this. We don't see now how that testimony could have any bearing on the case, but suppose when you think proper you present it and we will pass on it at that time.

Mr. Ross: That is satisfactory, Your Honor.

Mr. Lyles: I think it is understood that so far as the intervention of the railroads is concerned, that we are permitted to adopt the answer which has been filed by the State and go ahead on that issue.

Judge Parker: I don't know whether that is understood, but I think that should be understood now. We will make an order to that effect.

Mr. Ross: No objection.

Judge Parker: The intervening railroads are allowed to adopt the answer of the defendants, and the intervening shippers are allowed to adopt the allegations of the bill.

Mr. Funkhouser: That is satisfactory to us. It is the answer filed by the State, and they are adopting that answer as their answer.

Judge Parker: Yes.

Mr. Funkhouser: That is perfectly satisfactory.

Judge Parker: And the intervening shippers are adopting your bill.

Mr. Funkhouser: That is right.

[fol. 133] Statement of Evidence

THOMAS J. BURKE, a witness for the plaintiffs, having been first duly sworn, testified.

Direct examination.

By Mr. Funkhouser:

My name is Thomas J. Burke. I live at Charleston, S. C. I am Commissioner of the Charleston County Traffic Bureau and look after the shippers and receivers of freight in the City of Charleston, and also the Port of Charleston, in all transportation matters, particularly as to how rates affect the Port of Charleston as compared with other ports—competitive points.

Q. Are you familiar with the law of South Carolina limiting the gross weight of trucks to 20,000 pounds, and the width of trucks to 90 inches?

A. Yes.

Q. If that law is enforced, what effect would this have on the shipping industry in connection with Charleston?

Mr. Griffith: If Your Honor please, we object to that.

Judge Parker: On what grounds?

—— ——: ——.

Judge Parker: Overruled.

Mr. Griffith: Exception.

Judge Parker: I think we will save time if we remember the Federal rule that the Court is passing on testimony. On irrelevant testimony we are assumed to disregard and all relevant we are assumed to consider.

Mr. Griffith: I was doubtful whether that rule applied. Do I understand it is not necessary to object to any testimony that is incompetent or irrelevant?

[fol. 134] Judge Parker: It is not necessary.

The Witness: At the Port of Charleston we have shipments arriving from various ports throughout the country. We have coastwise — between New York, Philadelphia, and Baltimore to Charleston. We also have coastwise shipping from the Gulf ports of Houston, Galveston, New Orleans, Lake Charles, Louisiana; then we have intercoastal service from the Pacific Coast ports of the United States arriving in Charleston, and then foreign commerce coming into the Port and going through the Port to foreign ports of a large part of it, and the Port of Charleston would be seriously affected by this weight law. I can call one particular instance on an inbound shipment. This is a shipment of cotton tire, cotton fabric moving from Gastonia, N. C. This movement has been going to Charleston for a number of years, consigned to the Pacific coast. The shippers state if they cannot make the shipments through Charleston——

Judge Parker: I don't think you ought to go into hearsay.

A. This shipment would be discontinued if the weight law went into effect, and the shipment would move to the port of Wilmington, N. C. on the inbound products from the Pacific Coast moving out by it to points in North Carolina, there is a large movement, but the shipments would be discontinued and the movement would be made to the North Carolina points through the port of Wilmington. This is because the steamship companies operate not only to Charleston, but to Savannah, Wilmington and Norfolk, Virginia.

The inbound freight comes into Charleston on the A. & P. trucks, larger trucks than are permitted under this gross weight law. The outbound traffic is moving by the A. & P. [fol. 135] trucks down from Gastonia to Charleston. I have

seen those trucks at the dock and looked at them. They are larger than a truck that would carry a gross weight of 20,000 pounds.

Enforcement of the weight law would cause discrimination against the Port of Charleston, because it would tend to divert that traffic that moves by truck from Charleston to the ports of Savannah and Wilmington. The main commodities that move through the Port of Charleston are those moving from the Pacific coast; canned goods of all kinds, dried fruits, dried beans and peas. All commodities moving from the eastern ports of the United States, we have practically everything that moves into the interior of South Carolina and North Carolina; these goods that are used in the wholesale grocery trade, hardware lines and the manufacturers. For instance, to the cotton piece-goods manufacturers we have chemicals, acids and dyestuffs that move out of Eastern cities by boat line to Charleston and then by truck from Charleston to the Carolina mill points.

Q. What percentage of these commodities move to and from the Port of Charleston by trucks?

A. Taking the Pacific Coast movement on inbound movement, these movements coming into the Port of Charleston and moving from Charleston to the interior, during the ten months of 1935, 14% of that tonnage moved by truck. Comparing the first ten months of 1936, 24% of that commerce moved by truck. On the outbound shipments from the interior points in North Carolina or in South Carolina moving to the Pacific Coast, the outbound shipments for the ten months of 1935, 54% moved by trucks; for the ten months of 1936, 58% moved by trucks. Taking the coastwise steamship lines, the Clyde-Mallory, comparing the tonnage with the railroad tonnage, 30% of their tonnage moved by truck. We come to the Bull Steamship Company, [fol. 136] operating from Baltimore, Philadelphia, and also from the Gulf ports, their approximate tonnage moving by truck was about 40%.

Q. How many steamship lines come into Charleston?

A. On the intercoastal trade we have inbound the American-Hawaiian Steamship —; on the outbound, the Williams Steamship Corporation; on the coastwise trade, we have the Clyde-Mallory lines and Bull Steamship Company. Then the Bull Steamship Company operate a service between Porto Rico and Charleston. Then we have the for-

eign steamer lines of monthly sailings to all United Kingdom and Continental ports.

The Witness: All those steamship lines haul freight into Charleston for distribution through Charleston to the interior part of the country; and all of them carry cargo out of Charleston. A certain percentage of the cargo for and from all those steamship lines goes by truck into and out of Charleston; some moves by the railroads. The percentage I named at first was the intercoastal traffic; it applied to the Williams Steamship Corporation and the American-Hawaiian Steamship Company, the coastwise traffic applying to the Clyde-Mallory and the Bull Steamship Company. As to the foreign commerce, I have no figures on the extent of their cargo that moves by truck.

The enforcement of the weight law would cause these steamship companies to divert a large cargo from Charleston to other ports. When you do that, it immediately affects the labor that is employed on the docks and also affects the money that is spent by the steamship lines in the City of Charleston, and that immediately affects the citizens of Charleston.

The Port Utilities Commission was created by the State of South Carolina to take over the wharves and docks at Charleston and also a switching railroad that connects with [fol. 137] the three railroads coming into Charleston. This Port Utilities Commission was also required to operate these wharves and terminals and develop the commerce through the Port of Charleston. If there is any lessening of the amount of traffic that will move through Charleston, it will have a decided effect upon the operating revenues of the Port Utilities Commission.

Judge Parker: Mr. Funkhouser, aren't we getting pretty far afield? Your inquiry is this, whether there is any relationship between this Act and the safety of the highways and the protection of the roads, and if the Legislature of South Carolina hurts Charleston by protecting the roads that is a matter in their discretion. The only thing we are interested in is whether or not there is such a relationship between this Act and the safety of the public using of the highway and the protection of the roads that the Act cannot be said to be unreasonable.

Mr. Funkhouser: Basically that is my understanding of the case, but there is one point, it seems to me you have not

covered. In testing reasonableness you show the effect, and another thing, I am here on an application for injunction, preliminary and permanent, and I have to show my damage, permanent, immediate and irreparable.

Judge Parker: Well, I would say to you that so far as the Court is concerned—I think I speak for the other members of the Court, and certainly for myself—you need not put any great amount of testimony in to show you will be damaged by being kept off the roads.

Mr. Funkhouser: There is another point, in making a record I don't see how I could go along—this Motor Carrier Act expressly prohibits discrimination against ports, towns and people, and I want to show the discrimination against the Port of Charleston.

[fol. 138] Judge Parker: I don't think that is what we are thinking about, and unless you can show me, we are not going to consider that point. The point is, just as I have indicated, whether this Act is reasonable. The Courts cannot supervise the general trade policies of the Legislature of South Carolina.

The Witness: The losses to which I have referred would occur when you had any lessening of commerce through the Port of Charleston, because it is true that when you divert traffic to another port, it takes years to regain that traffic, and during the time we are attempting to regain it, we are losing money.

Enforcement of the weight law will increase the taxes of the citizens of Charleston. The City of Charleston is bonded for the Port Utilities Commission in the sum of two and a half million dollars, and this Port Utilities Commission operates the wharves and terminals and a belt line railroad. So far, they have been able to pay their operating expenses and a proportion of the interest on this bond out of their operations, but if you reduce or lessen the traffic there, then they are not able to make the operating expenses, and of necessity the citizens have to be taxed.

The width limit of 90 inches imposed by the South Carolina law would have the same effect on the commerce as the weight limit. The width of most of the trucks and tractors and some trailers that come into the Port of Charleston carrying this interstate commerce is 96 inches, and the same loss would result from the enforcement of this width limit as from the enforcement of the weight limit.

The freight rates in the southeastern part of the country are somewhat higher than those in the middle west. If the truck competition with railroads was eliminated, the truck [fol. 139] competitive rates now in effect would go out and you would go back to the normal level of rates, which is higher than these competitive rates. This would mean that commerce flowing into, out of and across South Carolina would be carried at higher rates to the public.

I can cite you one example of that. We get rice from Lake Charles, Louisiana, that is bought by a concern in Florence, South Carolina. It does not stop at the Port of Charleston; it comes by steamer line to Charleston and then goes out to Florence. At the present time the railroads have in effect what they term a truck competitive rate from Charleston to Florence. This rate is 11 cents per 100 pounds. If you remove trucks and don't permit movement that way, there is no need for that truck competitive rate and you go back to the normal rate. This 11 cent rate is a minimum on 30,000 pounds. The normal rate is 22 cents with a minimum weight of 40,000 pounds; there is an increase of $55.00 a car.

The situation as to the higher rates in the southeastern part of the country has been a gradual process. In 1928 the rates were all revised in the southern part of the United States under what is known as the southern class rate investigation—that was class rates—but since that time we have revised the commodity rates. At the time the class rates were revised the level in the South was 25% higher than the midwest section of the country. That level today has risen to about 40% higher.

The truck competition with the railroads has tended to keep the levels of the rates down. If it were removed, this would be a detriment to the shippers and to the citizens of this State and section. I can point out some examples here where it will be to the shippers of Charleston. There are some concerns that handle linoleum moving out of Marcis Hook, New Jersey, to Charleston. They buy the shipments in quantities so as to keep the stocks active all [fol. 140] the time. That is moved in by truck. If the weight law is put into force, these shipments will have to move by railroad. They will have to buy in larger quantities and they will not be in the same position to compete with the competitors located in other states. That would create a burden on interstate commerce.

We have fourteen fertilizer plants located at Charleston. We manufacture enough fertilizer to ship it all over the states of Carolina and Georgia, but on account of the rate structure we are limited in the distribution of fertilizer, and we have been able by the use of trucks to make shipments of fertilizer into North Carolina and Georgia, but if this weight law goes into effect, then we will have to fall back upon our railroad distribution, and therefore, our area of distribution is going to be limited.

Cross-examination.

By Mr. Griffith:

I gave some percentages as to the volume of freight moving by truck in 1935 and 1936, which I compiled from records of the intercoastal steamer lines, their agents at Charleston, Street Brothers. I haven't with me any percentages for prior years. The trucks have reached their point of efficiency within the past five *five* years. There was some movement prior to that time, but not as much as in the last five years. Our records indicate that there has been a steady increase in the movement by trucks during the last five years.

Judge Northcott: I want to ask the witness a question. What, in your opinion, would be the effect on Charleston and the citizens of Charleston, and the port and taxes and all these various things you testified about, if the trucks put the railroads out of business?

A. Judge, we would be as seriously concerned about that as we would about the trucks. Our idea is, there is sufficient [fol. 141] for all as long as they are kept within reasonable limits, and we are anxious to see the railroads, the steamships and the trucks compete with each other under reasonable regulation.

I had occasion to look up the coal figures in a coal case which we handled before the Interstate Commerce Commission, and the coal going into Charleston annually in 1933 was 125,000 tons. No coal comes into Charleston by truck, because we are too far distant from the coal mines, over 450 miles from the nearest coal mine. Steamers take on coal at Charleston, we have bunkering facilities and a coal pier, and quite frequently ships come into Charleston for cargoes and also for bunkering. The total of 125,000 tons that I gave relates only to the consumption of coal in the

City of Charleston and to coal used by tug boats in the Port. That does not relate to the tonnage that moves through the Port.

Redirect examination.

By Mr. Funkhouser:

60% of all movements of cotton into Charleston is by truck; 40% by railroad. If the truck competition were removed and all cotton moving through Charleston went by rail, the cotton would seek other ports. The reason we have been able to control a substantial percentage of a cotton movement is because we can use the trucks, but if we can't, the cotton rates are going up to the normal basis and they are going to seek other ports where they can move it through.

(The witness recalled.) As to the actual tonnage of coal moving through the Port of Charleston (in response to question by Judge Glenn): There were for exterior movement from Charleston 36,778 tons in 1934, and 75,780 tons in 1935. This moved by rail to the Port and moved by ship beyond the Port in exterior trade.

[fol. 142] JOHN W. GERATY, a witness for the plaintiffs, having been duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live at Yonge's Island, Charleston County, South Carolina. My principal business is growing vegetables, farming and specializing in vegetable growing. In addition to that business, I am also an officer and an organizer of the South Carolina Produce Association, which is a cooperative farm organization composed primarily of the farmers or vegetable growers. This concern was organized in 1915. We have completed 21 years of business and for over 18 years of that time the South Carolina Produce Association was the largest shipper of vegetables in the Carolinas, and when I speak of the business, my own business is handled through this cooperative organization, as well as the other growers who are members, and over 90% of the total produced, the vegetable produced is shipped in interstate commerce. The Produce Association ships in interstate com-

merce. We operate principally in the coastal section, which is the market garden section of the State, Charleston County, Beaufort County,—we have had members in Georgetown County,—Horry County, Colleton County, and a few members in Hampton, but I would say 85% of our volume of business is in Charleston, Beaufort and Colleton Counties.

I am familiar with the South Carolina weight and width law on trucks. I have attended almost every hearing that was held while that law was being passed by the South Carolina Legislature. The enforcement of the law as to weight and width would absolutely debar the vegetable growing interest of the use of those facilities for moving our products, and it would mean the discontinuance or confiscation of our industry. We would have to go into other business or go bankrupt. We ship by refrigerator trucks. [fol. 143] If the law is enforced, I could not use a modern refrigerator truck for hauling products in South Carolina. Just at this point I would like to stress that the cost of transportation by truckers, and most of them have to move by refrigerator trucks, and the different growers and organizations do not own this equipment. We cannot afford to buy it, no more than we could afford to buy and operate a railroad. We have to depend upon securing this equipment for moving our class of products from large corporations who own this standard equipment. This equipment travels with the season. Some of the equipment we use is owned by corporations in Michigan, Wisconsin and New Jersey concerns and different states in the Union. They go to Florida, following the seasons up through Georgia and the Middle West and go where they have the stuff to move. Now all that equipment is standard. If the law is enforced there could not be one single piece of that standard equipment used in South Carolina, because it is all 96 inches wide and on account of the weight, we will simply be debarred from using the trucks. We could not secure trucks to use.

We cannot ship by railroad because the service that is rendered on a large percentage of our business by the trucks cannot be rendered by the railroad. It is a different class of service and a different kind of service. Our competitors in Georgia, Alabama—I mean the market gardens who grow the same commodities—ship at the same time and they could get the benefit of this truck service which is entirely different from railroad service and would give them

such a monetary advantage that it would amount to around anywhere from $50.00 to $85.00 an acre as against the growers of vegetables in South Carolina. Our records show that we don't average this profit per acre. It means that we would simply have to go out of business and it would go to our competitors who could use this equipment.

Judge Glenn: I meant, why could you not use the railroads?

A. Well, I will take—say, the shipments moving from the Charleston territory to the New York market. I will take that area because that distribution handles about 35 or 40% of our products. This is the difference. Our rate—[fol. 144] we will say—our rate by truck and the freight rate by rail is the same, but the service that is rendered is an additional cost when stuff is shipped by rail and it amounts to this; that we ship by truck and when we ship by truck, the truck loads at our packing shed in the field, goes to New York and unloads at the store of our consignee or the persons to whom we have sold or shipped the stuff. In the matter of schedules the truck makes a schedule of around 30 to 35 hours from our place to New York. The schedule by rail is a third morning delivery, nearly twice as long. If the stuff is shipped by rail, after it gets to New York it has to be lightered across and unloaded on the terminal. We have a terminal charge for unloading which figures at 1.2 per package. This is in addition to the freight rates. The freight rates are the same. After that stuff is unloaded on the terminal in New York, we have a cartage charge. It has to be carted from the terminal to the buyer or consignee. That cartage charge is eight cents a package. Then on account of the difference in length of time in transit, there is a difference of three cents a package in the cost of refrigeration, which makes a total additional charge when shipped by rail of 12 cents per package. The standard car load has 600 bushel packages, and you take in commodities like cabbage and spinach, that is just about the average yield per acre. The additional charge of 12 cents per package would figure at $72.00 per car or acre. Therefore, the growers of these commodities in South Carolina who cannot use these refrigerator trucks would be put at that disadvantage against his competitors in Florida, North Carolina, Georgia, and Alabama. That is, as far as equipment, schedule and extra charge.

About the lightest unit of the standard refrigerator equipment being used now will run from 12,000 to 14,000 pounds. That is the unit without the payload. As to the refrigerator, that unit will carry 450 to 500 bushel packages. Then to refrigerate that load you will have to use 5000 [fol. 145] pounds of ice. There are 13,000 to 18,000 pounds and under the present law, if enforced, that would reduce the payload you could carry, 2000 pounds at one point.

Judge Parker: What is the weight of those units?

A. The vegetables vary very much, but the average weight runs about 40 pounds a bushel. Say 500 packages would be 108, about 20,000 pounds. That would be that the unit and the load would give you about 35,000 or 36,000 pounds. But that is the smallest standard size refrigerator unit we use at all. There is much larger, but we have been using the equipment hauling from 400 to 520——

Judge Parker: Is that a single truck or trailer?

A. It is a single unit—but I don't think the Court has that clear. We have what we call a semi-trailer and what is called a four-wheeled trailer. The standard equipment is semi-trailer equipment. You have your motor and power in a short coupled power unit. Just your refrigerator truck sets on to that.

Judge Glenn: You have a six-wheeled unit?

A. Some six and some eight. Then you have three and four axles. A lot of the trailers have two axles under the trailer and two under the power units which gives you four and a lot of those axles have double wheels. You have eight wheels under the trailer, you see, you have six wheels under the rear end of the power unit which would be fourteen tires and two tires in front end, which distributes the load over the highway, and that is done to protect the highway. That evidence was taken in this hearing and was not refuted before the Legislature. It was stated there that these standard units loaded with that capacity that what damage was done to the highways is due to the number of bearings that an ordinary Chevrolet or Ford with five passengers would do just as much pounding or damage to the highways as this load distributed on standard [fol. 146] equipment with six wheels. That evidence was given at the hearing and they did not attempt to refute that.

We have two classes of buyers. The railroad service is just as necessary to us as the truck service. Now, to a

large buyer and a large operator, to the one using and buying a solid car load of one commodity, we must use the railroad service because his car can be shifted around without breaking the bulk, but 50% of the stuff is used by dealers who do not buy in solid car lots and to that man the truck service is indispensable and that class of buyers use over 50% of the products, and they demand that service.

If we were denied that service we could not compete with produce growers in other states. On account of the new freight rates on the general freight revision on perishables that became effective September 5, 1934—I think that is correct—that did away with discrimination on perishable vegetables from the western territory to the east. That is going to necessitate a very large percentage of the acreage of lighter vegetables, such as spinach, lettuce, carrots, and other stuff grown in Texas and shipped to the eastern markets, that acreage will have to be transferred to the eastern seaboard markets on account of the advantages. There is one large New York operator who was operating 8000 acres in Texas of these commodities. We were doing considerable business with him. He wanted in 1934 to transfer, as soon as the law became effective on September 5, 1934, to arrange to transfer that acreage and wanted to transfer that acreage to Charleston, South Carolina, area and have it grown by our organization, 8000 acres. On account of the truck law that was then pending, he said he could not afford to make that change until the matter was settled, because unless he could handle that stuff with those trucks he could not load as a result of the law, and that man has now located part of that acreage [fol. 147] in Florida towns near Tampa and part at Moultrie, Georgia, and there are 15 to 20 other large operators in New York who have to make some kind of transfers representing over 100,000 acres of these commodities.

If the law is not enforced in South Carolina, I think these growers will come into this State, because we have natural advantages. We have a better labor condition, better soil condition, and better climatic condition. If we are not interfered with by something arbitrary, we will have natural advantages.

Judge Northcott: Do you think the Court should consider whether North Carolina, Georgia, or other states getting this business is proper to enter into this case?

Mr. Funkhouser: I think that shows discrimination against interstate commerce.

. . . . . .

[fol. 148] The Witness: Since the advent of good roads and automobiles, communities have grown up in this State which produce vegetables where there has never been any railroad. On these hard surface highways that have no rail facilities there has been a large development of acreage devoted to the growing of vegetables for shipment to market. If these trucks were banished from the highways, they would not ship these vegetables.

The manner of conducting the produce business has changed remarkably since the advent of trucks, and particularly as to the broadening of consumption and cheapness, making the price of the commodity sufficiently low that a large percentage of the population can buy and use vegetables now that could not use them prior to that. As a result of that, less than carload shipments are sent to small towns by truck. In a town of as much as 2500 or 3000 population that town can not use a carload of mixed vegetables and under the present railroad loading regulations we cannot economically ship a car load of mixed vegetables to those small towns they cannot buy in carload lots.

Q. If he is compelled to ship by railroad, could they be shipped by rail?

A. At this particular point they could not, because there is not a consumptive demand to use them.

Q. That is, unless put in a larger car which would be prohibitive in cost?

A. Yes.

M. M. Stuart, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live at Shelby, N. C. I am in the motor transportation business with Barnwell Brothers, Incorporated, a plaintiff in this case. I am a stockholder and manager of our

[fol. 149] western division, which includes North Carolina and South Carolina. I am familiar with the South Carolina weight and width law, which has to a great extent prevented my company from operating in this State. We have ceased a good many of our South Carolina operations for this reason. In most cases, if we ship into this State, we ship through another company. If that law goes into effect, an operator attempting to come in and through this State would have to secure equipment for use only within this State; equipment to operate here could not be operated profitably in other states that have tire weight limits. It would be necessary to unload from large trucks to small trucks at state lines. For a profitable operation from Atlanta, Georgia, to New York, a truck would have to unload at the South Carolina state line, also unload and reload into a larger truck at the Georgia line; that would be two unloadings, and possibly two trucks to carry the same amount of tonnage through South Carolina that one truck would handle through the other states. That would increase the cost of transportation materially, because it costs practically as much to operate a small truck as a large one, the costs are of varying character, gas consumption, labor costs and the investment in the equipment. That would increase the cost of transportation to the ultimate consumer. A truck to comply with the South Carolina law would cost about 75% as much as a truck that would carry twice the amount of merchandise. The comparative total would be three to two.

My company operates under authority of the Motor Carrier Act, and has filed a schedule of rates with the Interstate Commerce Commission, in which we have taken into consideration the increased cost of operation in South Carolina. We have tried to comply with the law in South Carolina and for that reason, we have set up restrictions in our rates causing the rates on commodities which originate in South Carolina moving to the East to be considerably [fol. 150] higher than from some point in North Carolina, which ordinarily would take the same rate basis. As an example, the product of a cotton mill at Shelby, North Carolina, would be moved to New York at the commodity rate of 74 cents. On the same shipment from Blacksburg, South Carolina, about 15 miles from Shelby, to New York, the rate would be $1.14 per hundred pounds, a difference

of 50 cents. We are forced to discriminate against the business originating in South Carolina. A good bunch of the big textile shipments from Spartanburg moves by truck, but not nearly as much as the same type of commodities from North Carolina points. Gastonia, N. C., and Spartanburg, S. C., are comparable as to the amount of textiles produced. They have the same rate basis to the east. We make a difference now. On almost every kind of article, our rates from any South Carolina point under ordinary circumstances showing the same rate from similar points in North Carolina is considerably higher. Most of the commodities from Gastonia are cotton yarns to Philadelphia with a rate around 68 cents. That same commodity from Spartanburg by our line would be rated at third class or approximately $1.14 or right at that figure.

The excess cost means that the South Carolina textile shippers are not able to use truck transportation. They have to a great extent lost their markets. I know of lots of instances where they have already lost their markets.

If the South Carolina Act is enforced, it will not exclude the operation of tractors and semi-trailers, but it will reduce the size and the amount of tonnage they carry down to the point where it will not be economically profitable to operate that type. We could not operate them on a profitable basis, because we would not be able to carry enough payload to justify the increased cost of operating and the first cost of this type of outfit.

[fol. 151] As between a truck and semi-trailer under the South Carolina law, the amount of pay-load that we would be able to carry would depend on the weight of the empty vehicle. The truck in every instance ordinarily would weigh less than the truck trailer outfit. Taking two similar vehicles, the semi-trailer that will carry the same quantity that the truck will carry—that type of semi-trailer and tractor would weigh ordinarily, the smallest unit, about 12,000 pounds empty, and the payload would not weigh but eight to nine thousand pounds. It is the experience of the states who have small limitations, that the roads are full of small overloaded trucks which are much more unsafe than the type loaded properly and conducted along safe lines. Under ordinary circumstances, leaving out this law, a motor carrier would carry more of a pay-load on a semi-trailer than on a truck; but if the South Carolina law is

enforced, he will be compelled to carry the most pay-load on the truck and not use the semi-trailer. There is a better distribution of the load on a semi-trailer outfit. If the law is enforced, it would enforce heavier loads on vehicles which are not prepared to carry as good loads as tractor-semi-trailers, and it would create an unsafe traffic on the highway. That is the experience we have had in every state that has low weight restrictions.

If the law is enforced, the service rendered by trucks to the buyers in New York would be greatly hampered. The decrease in time of delivery of shipment is of the greatest importance. In the ways of conducting business, particularly of people carrying a very small stock of goods on hand, and in order to get in their supplies fast enough they have been forced to use truck transportation. Prior to the advent of the trucks coming into the picture, they could not get the service that they have today. They were forced to carry some thousands more in stock and inventory.

[fol. 152] Since the advent of good roads and motor transportation, the method of doing business has changed entirely. The retail buyer has reduced his investment considerably. We have customers who have been able to reduce the amount of money invested in inventories and stocks on hand by as much as $500,000.00. Truck transportation has been able to give them service on their supplies which has reduced time in transit more than one-half. They can get the goods quicker when they want it and don't have to wait on delivery, and don't have to buy and hold for future use. That change has come in the last four or five years, since the development of motor transportation.

Most people are employed in South Carolina in the textile industry, outside of agriculture. If the State law is enforced, the mills in South Carolina cannot compete on the same basis with other mills in the country if they will not be allowed to run or get their proportion of business that they ordinarily would, thereby creating unemployment.

I think about 75% of the textile products in North Carolina are transported from the mills to their markets by truck. I think the figures in South Carolina are just about the reverse, only about 25% of the textile products move by trucks. This difference has been caused by the fact that motor transportation has been denied to the people of South Carolina to a great extent.

Approximately two hundred trucks are operated by my company, which was organized in 1930 and has been in business since that time, handling mostly textile products from the Southern mills for New York markets. We operated two trucks in 1930. We have had two hundred trucks since January 1, 1936; our business has grown from two trucks to two hundred trucks in those years. That situation is generally true with the large trucking companies. There [fol. 153] is a revolution in transportation, and practically all of it has taken place in the last five or six years. It has changed the method of doing business in the country to a great extent. I think that is a natural development; it is as natural as the growth of the railroads when they replaced the former method of transportation—when the canals could not give service the railroads gave it. Now the trucks give service the railroads cannot give.

Cross-examination.

By Mr. Griffith:

The large development in the use of trucks for transportation is general among the operators the country over. A great many of such operators have increased much more than my company. I think that our company is an average as to the increase in business, that we are just about the average.

Our line of trucks, the trucks that are principally in the business of handling shipments over long distances from New York into the South here, weigh in the neighborhood of 16,000 to 17,000 pounds empty, truck and trailer. Our loads average on those trucks around 16,000 to 18,000 pounds, on the average; sometimes they are loaded as high as 20,000 or 21,000 pounds, but we are still within the law in the various states when they are loaded to that extent. Our axle weights when loaded are less than 18,000 pounds per axle—I cannot tell you exactly. You can figure it—there are three axles per unit. This front axle does not bear as much weight as the middle axle, and the middle does not exceed 18,000 pounds. I would say that our axle weight is somewhere around 18,000 pounds per axle, and we stay under that.

Redirect examination.

By Mr. Funkhouser:

As to the axle about which Mr. Griffith asked me, with the exception of the front wheels, there are two tires on each end of the two axles. The trailer has ten tires. Four tires [fol. 154] on the axle distribute the load better than two; it increases the amount of surface there is on the road. We use low pressure, pneumatic tires, balloon. I don't think they damage the road as much as high pressure tires. Our largest units are 96 inches, outside width measurement. That is the new equipment we have bought in the last two years, which is standard. Our pay-loads average from 16,000 to 20,000 pounds per load on our largest units, more often about 17,000 or 18,000.

96 inch wide trucks have been standard in North Carolina for only the past two years; practically every northern or eastern state has had 96 inch width or more all along, since any regulations have been in effect, since we started going into New York territory six years ago—those regulations were in effect then. The extra width increases the cubic capacity. It allows us to load much more thereon and especially is that valuable when there is bulk. They have to be longer and narrower, because you can get three or four lines of cases in there but with only 90 inches maybe you would lose two feet. Our experience has not shown that the extra width makes the trucks more dangerous to operate on the road. Our experience has shown that the lighter trucks are much more unsafe than the heavy ones. We have about 25,000 miles of actual road mileage per day and we keep several men to keep our cost accounting and observation, etc., and we have had much better experience on larger units than on small ones. Our ratio of accidents has been less. The same principle applies in a truck that is correctly balanced as it does in an automobile. For instance, a 6,000 pound Cadillac car can be handled on the road and stopped quicker at 60 miles an hour than a Ford can weighing 3,000 pounds. In other words, a small light car traveling at an excessive rate of speed cannot be handled on the road or stopped as quickly or as safely as a much heavier car. This is so at a higher rate of speed. I don't know why, but it is true, and the same thing applies with the truck. If a truck

[fol. 155] is correctly balanced, in other words, the ratio of the weight of a truck is correctly proportioned to the weight of the load, if it is correctly distributed over that entire medium it is much safer than one that is top heavy or a small one that is greatly overloaded. The extra space that the tires occupy on the road, the extra braking powers that the big trucks have, much more than compensate for the momentum of the truck because of the extra load. Our trucks have brakes that will stop the truck at 50 miles an hour, even though it tears the tires off the truck.

The trailers in most instances are about 25 feet long. They are ordinarily about 38 feet all over. I think the South Carolina law with respect to length is about 45 feet—it used to be. (Mr. Funkhouser advises that it is 35 feet.)

We operate from New York through Pennsylvania, Philadelphia, Delaware, Maryland, District of Columbia, Virginia, North Carolina, and principally some, in this State. We have rates in effect all over the territory east of the Mississippi River, joint rates in effect with various carriers over the entire eastern section, so that any shipment can be transported at a certain through rate—there are various carriers. If the South Carolina law were enforced, I don't think shipments could be made through South Carolina on those through rates; they could, provided it is done on the present rates. I think it would be necessary to increase the rates in South Carolina.

My company hasn't had any interchange of equipment with others, as where a truck is loaded in Boston or New York and is transferred to another company at a certain point, but it is very practical to do that if the regulations would allow it. The Interstate Commerce Commission has considered the possibility of that, I think, and suggested [fol. 156] that it be done. I think they have the power to do so. If that could be done it would enable us to give a much quicker service to our customers because loads could be loaded at the point that they originated and sent direct to the point of destination without any terminal transfer, or reloading. This would require only changing drivers, supervision, and responsibility.

[fol. 157] R. W. Knowles, a witness for the plaintiff, having been first duly sworn, testified:

Direct examination,

By Mr. Funkhouser:

I live in Cleveland, Ohio, and am employed by White Motor Company as a Transportation Engineer. I have been sixteen years with the present company. A transportation engineer has as his duties the examination of hauling operations of a number of operations and presenting the economic picture found thereby as well as buying equipment to meet that competition. I design combinations of vehicles to meet a particular situation, for example, tractors and semi-trailers with particular design of bodies to meet the particular condition.

The standard tractor-trailer used in the Interstate Commerce today is ordinarily designed to carry about 18,000 pounds per axle and sometimes a little less; usually 16,000 to 18,000 if a state law permits, which most of them do. I select 18,000 pounds per axle as a basis in designing the cars because most of the states permit this, and the various authorities, such as the American Association of Highway Officials, have subscribed to that weight per axle. The American Association of Highway Officials have recorded themselves as being in favor of no gross weight limit, but weight per axle limit.

As an engineer, I do not believe that gross weight in any way protects the highway. For example, if I might explain my idea: If there were two trucks, one proceeding behind the other, and each had one axle with 18,000 pounds limitation on it, whether those two trucks were independently propelled, pushed by hand, or one pulled the other, by means [fol. 158] of chains, cable, or bar, the effect on the highway would be practically the same. If the front axle were removed from the picture, throwing the support on the back of the other truck, having its body suitably disposed to permit that, then the weight on the axles would distribute —their effect on the highway would be the same standing or operating on the highway. The weight of the vehicle affects the highway in relation with the contact of the tires on the road; it is transmitted to the highway through the axles and tires.

In designing an automobile, we do not consider the gross weight as to the highways, we are concerned with the axle weights.

In designing tractors and semi-trailers for bridges, the common accepted procedure is to see that the axles are so spaced to the weight on the axles that they will comply with the formula, that the length between the front and rear axles, plus a space usually 40 center dependent on the type of bridge, shall not exceed a certain figure. There is a standard formula used by highway engineers and other engineers to determine that.

(The witness is handed a pamphlet entitled, "Who Shall Use the Highways and How," and is asked who makes up that Association.)

I believe that has been stated by other parties. My understanding is that it is the highway officials of the several States who, I am advised, work in connection with the Bureau of Roads. It contains specifications as to what weights the roads ought to be designed to carry. I understand that the Bureau of Roads concurs in that.

Q. Will you look at that and state to the Court what axle width is provided in there?

[fol. 159] Judge Parker: Wait a minute. Your adversary has not objected, but I told him he need not object.

Mr. Davis: That is not competent evidence.

Mr. Funkhouser: I want to make the point that the Association interested in highways and also the Bureau of Roads have agreed on that as a standard at the present time.

Q. Do you know about who has approved those recommendations in there, what they mean and whether or not that is a standard at the present time?

A. I know that I have read and studied this to some extent, and the regulations herein are substantially the same as they have been by this body for sometime and that the general recommendations are concurred in by the AMA right recently.

Q. What is that AMA?

A. That is the Automobile Manufacturers Association. Might I quote one sentence from this on page 9, "Highway stresses are ruled by wheel loads and not by gross loads."

Judge Glenn: That is your view, too?

A. Yes.

By Mr. Funkhouser:

Q. Will you read what it provides as to axle weights and recommendations?

A. (Reads:) "Axle load: The wheels of all vehicles, including trailers, except those who operated at 10 miles per hour or less, shall be equipped with pneumatic tires. No wheel equipped with high pressure, pneumatic, soled rubber or cushion tires shall carry a load in excess of 8000 pounds, or any axle load in excess of 16,000 pounds. Research indicates that the low-pressure pneumatic tires can carry 9000 pounds per wheel without increasing pavement slab stresses. An axle load shall be defined as to total load on [fol. 160] all wheel- whose centers may be included between two parallel transverse vertical planes 40 inches apart. These limitations are recommended for all main rural and inter-city roads, but should not be construed as inhibiting heavier axle loads in metropolitan areas if any State desires."

In my opinion, safety on the highway will not be enhanced by 20,000 pounds limitation. For this reason, among others, a vehicle having gross weight of about 20,000 pounds can carry approximately six ton pay load and a properly constituted semi-trailer whose axle weights are kept within the pounds as set forth by the AMA Highway officials, namely, 18,000, can carry a pay load of about 24,000 pounds. That is twice; consequently to move the same total tonnage of merchandise in interstate traffic or any traffic would require about twice the number of vehicles and using twice the number of vehicles would mean twice the opportunity for hazard. You would have twice as many vehicles operating at any rate, and if they are equally well constituted as to brakes, tires and manufacture, were of equal structure, there would be twice the hazard of meeting with some other vehicles. From that standpoint, I cannot see that safety would be enhanced.

Judge Parker: Does not the smaller unit prevent greater damage than the larger unit?

A. No, sir. It is true that certain tractor-semi-trailer combinations have been set up which are not safe. It is also true that many straight trucks are not safe, but if the weights per axle are kept within proper balance as defined by the body of Highway Officials and the others subscribing to it, namely 16,000 pounds, if they are properly equipped with brakes so that they can stop within a given number of [fol. 161] feet, then there is no more hazard on the road with one vehicle, than by a truck conveying equipment——

Judge Parker: Is there not more difficulty in the driver seeing around one of the long ones coming when he passes them on the road?

A. His passing them on the road is a matter of relative speed of the two vehicles and the freedom of the road to pass and the judgment of the over-taking driver as to whether he has proper space and the conditions in which to pass.

Judge Parker: The question I have in mind is this. Is not the larger unit of that sort a greater menace to the other travelers on the highway for the reason that passing on portions of curves, it is almost impossible to get a proper view of the highway?

A. This same Association advocates a limit of 45 feet in length and some trucks can be set at 45 or if not 45, then certain loads such as lumber, logs, might exceed the figure even at 30,000 pounds, you have the same length hazards.

By Mr. Funkhouser:

The Witness: The longer vehicle is more dangerous than the shorter one in passing. It is possible that one 50 feet long is more dangerous to pass than one 25 feet long but, of course, it does not hold of necessity.

Q. You have more distance to travel on the opposite side of the road the longer it is.

A. You should have a greater open space in which to let that passing, but that is in the judgment of the operator who wishes to overtake it. There is no difference in hazard between a tractor-semi-trailer of 45 feet length and two [fol. 162] trucks of 20,000 pounds, whatever their length, one behind the other, carrying the same pay-load tonnage because in either event you will have to pass the same length as the other.

In my opinion, vehicles of proper types, carrying approximately 40,000 pounds can operate as safely on the highways as trucks with gross loads of 20,000 pounds, because today we have power applied brakes on any combination axles, so that each axle and wheel of the vehicle can be stopped in the same distance with the same adhesive power, as if it were. Consequently the ability to stop is equally as safe. There have been vehicles constructed in the past when those brakes were not as safe, but not any more.

There has been a very considerable revision of the manufacture of automobiles in the last few years. Rather generally, by virtue of the availability of axles, heat treatments, etc., vehicles are now made lighter than formerly, — have the same strength. The advent of pneumatic and particularly low pressure tires has permitted you to do certain things with superstructure that has not been done prior. There has been a pronounced evolution, if not revolution in metals used in cars. There are metals available today for use in automobile construction that were not available three years ago, which makes it possible to do certain things for safety and strength.

The enforcement of a 20,000 pound vehicle law would affect highway costs in this way: As compared to a tractor-semi-trailer combination having its axles limited in weight according to the regulations of the same highway officials to 18,000 pounds, the tractor-trailer unit would or could carry safely about double the pay load. The cost per ton [fol. 163] of the two units would be about $1.00 in the case of a single truck unit limited to 20,000 pounds, because of the influence of the items of depreciation, insurance, license fees, drivers' wages, etc. As to the relative cost of highway maintenance:

Take one truck of a gross load of 20,000 pounds against one tractor-semi-trailer combination of 40,000 pounds— there may possibly be some relation there that I am not prepared to argue on, but it has been stated by people in that line of business for years that there is no difference in moving the requisite number of units for the tonnage over the highways at less, or the same number of units, provided the axle weight is kept within the proper bounds.

Semi-trailer combinations do not have to be highway hazards as compared with trucks. If they are properly constituted with their weight distribution per axle as advocated by the Association highway officials, etc., and their bodies subscribed to their findings, if they have brakes and adequate tires and — adequately constructed. The air brake has been in use on the semi-trailer-and truck combinations, possibly in a small way, for seven or eight years, and in a very pronounced way for the last five years particularly. I would be inclined to say that proper regulations concerning brakes would put the combinations on a par with the trucks, provided again, the weight per axle is cut down.

Cross-examination.

By Mr. Griffith:

I am not prepared to answer whether all highway engineers agree with my opinion. I don't know that I know all engineers. Those engineers having to do with the question in a public way and recognized by the industry generally, have agreed. None of them have expressed themselves in disagreement. [fol. 164] I have the statement of the Association of State Highway Officials and of the various officials in writing. Mr. McDonald of the Bureau of Public Roads is to the same effect. My own experience indicates that. I don't know of any contrary opinion; but I don't know the opinion of all engineers,—there may be thousands of engineers. I don't know what their opinions are.

Harry Tucker, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

My name is Harry Tucker. I am professor of Highway Engineering in North Carolina State College, and Director of the Engineering Experiment Station at Raleigh. I have been professor of highway engineering at North Carolina State College since 1921. Since that time, I have had intimate association with a number of the committees and organizations engaged in highway engineering work in the country. In addition, I have had some practice myself in highway engineering, that is, in the designing and construction of roads and streets. I am a graduate of Washington & Lee University. I hold degrees B. A., B. S., and C. E. I have charge of courses in Highway Engineering and Highway Economics. I teach all of the elements connected with highway engineering, including the location and design of highways, the operation of highways, that is, the operation of vehicles over them, the maintenance of highways, and those subjects properly belonging to a course in Highway Engineering. I teach them all.

I am familiar with the design of highways of different types. Concrete, or its equivalent, is considered standard

for main highway routes. The gross weight of a motor vehicle does not enter into the design of a concrete [fol. 165] highway or its equivalent. The design of a concrete pavement is based on the area of contact between the wheel and the pavement itself. That is, the gross load of a vehicle is transferred to the pavement through the wheels. Now, the wheel load is the thing that causes the damage to the highway; conversely the highway is designed to withstand a certain wheel load, without damage. The gross weight of vehicles has nothing to do with conserving the highway. It is the wheel load. The pavement is designed for certain wheel loads and, of course, certain axle loads. The wheel load is developed for the axle load, and if those loads are not exceeded, then the gross weight of the vehicle has nothing to do with conserving the highway or the cost of maintaining it.

I am familiar with some of the main State highway routes in South Carolina. I could give you a list of the ones I am familiar with. I have examined some of the South Carolina State highways. I went over certain roads in the State, and didn't pick them out,—didn't know much about the highway system in the State, and consequently did not pick out any particular road with malice aforethought, with any particular plan, but the roads I went over are the finest I have been over in recent years. They were well constructed, the shoulders well built, quite different from the way they are built and maintained in our State; the drainage good, and I didn't see any evidence of undue deterioration of the pavements from traffic. It is almost impossible to say what causes a failure of a pavement, especially a concrete pavement, there are so many factors entering into it. I will say that in a general way, without examining [fol. 166] every point in the system that is affected, that in a general way I saw no evidence of undue deterioration, —that might cause maintenance,—because of the heavy trucks, or trucks at all that come on these pavements. If heavy trucks were going to damage the highways and those trucks used those highways for six years, I think the damage would begin to show up.

Q. Using the concrete roads as typical,—what sections were used in the South Carolina highways you examined?

A. Well, of course, it is understood I didn't,—I was unable to dig a hole in the pavement, or drill a hole and get the thickness of the pavement. I got this information from

the highway department. I understand two sections were used on the road I examined, a 7½-6-7½, which means 7½ inches thick at the edge, six inches thick in the center, and 7½ inches thick at the other edge; and another was 8-6½-8, —8 inches thick at the edge, 6½ inches in the center and 8 inches at the other edge. I am informed by the Highway Department those are the two sections used on the concrete roads I examined.

Judge Parker: What concrete roads did you examine?

A. I will be glad to tell you. I went from Charlotte, in this examination to Spartanburg, Greenville, Anderson, Greenwood to Aiken, Batesburg, Charleston, Kingstree, Florence, Cheraw, and on route 52 to the North Carolina line. There is no particular town there that identifies it. I think without question these concrete roads that I examined will carry a wheel load of from 8,000 to 8,500 pounds, or an axle load of 16,000 to 18,000 pounds safely. As to how we determine that, we have methods developed originally by Mr. Clifford Older, by the Bureau of Public Roads, by Mr. Westergard, of the University of Illinois, by which knowing the thickness of a pavement and the strength of the concrete out of which it is constructed, we can determine [fol. 167] the wheel load, and therefore, the axle load, which that pavement will carry. There is no cumulative stress caused by the three axles of a semi-trailer-tractor combination. These three axles, if carrying the same load, each causes a stress in the pavement independently of the other axle. In other words, the three axles do not increase the stress.

Judge Glenn. In other words, take a given square inch on the pavement, the minute, the moment, the second the wheel passes off, the stress is all over?

A. That is correct. There is a limitation, as you perhaps know, the axles must be separated by 40 inches. If they get closer than 40 inches, my statement doesn't apply. They must be separated by at least 40 inches.

The axles of most of these trucks, trailers, tractors and semi-trailers engaged in interstate commerce, are absolutely separated to that extent, 40".

I have analyzed the road sections used in South Carolina and found that the road sections with minimum thickness at the center of six inches is good for the axle load of

16,000 to 18,000 pounds, so that with a tractor-semi-trailer combination, with three axles, the road will carry approximately 40,000 pounds gross; on the rear axle of the tractor and rear axle of the semi-trailer would be 16,000 pounds each, and on the front axle would be 8,000, that would make a gross of 40,000 pounds. If we add another axle to the vehicle about which we are talking, providing you could get it on there 40 inches apart, it would increase the gross load to 56,000 pounds without doing any additional damage to the pavement. These roads I examined would absolutely carry that load.

[fol. 168] I have made a study of highway accidents,—have lectured, written and talked on that subject. I have specialized somewhat on the subject. I have data that will give the relative frequency of accidents according to the type of vehicles and have made studies in that regard.

Judge Glenn: What territory is this data gathered from?

A. I have it for any territory you want. I have it for the whole country, and I have it for North Carolina, and I tried to get it for South Carolina, but the Highway Department wouldn't let me have it. I have been up there twice trying to get it. I think it would be well to use North Carolina because it is contiguous to South Carolina. For passenger cars the number of accidents, including deaths and injuries, are 12.64 per 1000 vehicles. For commercial vehicles, the accidents, including deaths and injuries, are 8.03 per 1000 vehicles, so that is the relative ratio on the basis of number registered, in North Carolina. The same figures apply roughly to the whole country. As a matter of fact, that isn't fair comparison, because it should be on the basis of mileage, the number of hazards that occur is dependent on mileage. I have the figures for various vehicles for the whole country on the basis of mileage. If you want them, I will be glad to present them to you.

(Mr. Funkhouser requested the witness to do so.)

For passenger vehicles, the figures for the whole country is one accident, including death or injury, per 100,000 vehicle miles. That does not take into account other types of accidents. We must remember that there are some 25 to 50 accidents involving property damage to every accident [fol. 169] involving death or injury. We haven't any data on that, but that is roughly the ratio, so that we can say

there is from 25 to 50 accidents of every description per 100,000 miles traveled for passenger vehicles in here. Then, vehicles for commercial vehicles; busses 2.66; trucks, building materials, 1.49, that is per 100,000 vehicle miles; inter-city trucking, 1.69; laundry 3.58; bakeries 3.69; department stores 4.38; newspapers 6.80; coal and ice 7.10. That table, those figures, are presented there to bear out a statement that is frequently made that for commercial vehicles the accident rate is much higher for vehicles engaged in local deliveries more than anything else. You probably got that out of the figures I read.

I do not have figures for those trucks engaged in interstate commerce. They are not broken down in that form, but are included in the general term of commercial vehicles. I have no data as to trucks as distinguished from other vehicles. Passenger cars and motorcycles have the highest accident frequency. Commercial motor vehicles have the lowest of all vehicles. Commercial vehicles would include these interstate trucks. I don't recall whether bakery vehicles have the highest frequency; newspapers 6.80, and coal and ice 7.10, that is, ice trucks have the highest frequency. The figures are not classified according to loads, but I would think that coal and ice trucks with their loads weigh under 20,000 pounds, as a rule. I think most of these coal and ice trucks operate in the city and in areas contiguous to cities. Of the commercial motor vehicles, those making deliveries, local vehicles, more or less, have the highest accident frequency, and commercial vehicles engaged in long distance hauling, including these busses and trucks, have the lowest accident frequency.

[fol. 170] I explain this conclusion in this way:

I made some study of the methods in use by these organizations engaged in commercial transportation. They have safety departments where the importance of careful driving is emphasized. They check their equipment—they get good equipment to begin with—they are very careful about employing their men; they employ only experienced men, and they are very thoroughly disciplined and I think that is responsible for some of the records made by the commercial organizations. For example, one of them operating 59 units, that according to information furnished me, has not had an accident of any kind since September, 1934. I think that is remarkable, and I don't see how it can take place.

I think that proper weight distribution on trucks and semi-trailers is important because safety on the highways these days, at the speeds motor vehicles are operating, and hazards and emergencies developing so quickly, the important thing is stopping when the emergency develops. These modern vehicles, the tractors and semi-trailers are equipped with duel wheels, power brakes, and very careful to see that loads are uniformly distributed, and that is not entirely unselfish; by distributing the load properly the wear on the tire is uniform, but all those things increase the safety of operation. The result is the vehicle can be stopped very quickly when the emergency developed. I can't see how proper distribution of the load is encouraged by a law which has just a gross weight limitation, because under that law the load need not be properly distributed.

Cross-examination.

By Mr. Griffith:

The formula that I referred to was a formula developed [fol. 171] by Mr. Clifford Older some years ago, I believe formerly Chief Engineer of the Illinois Highway Commission, that has been modified by certain tests on the part of the Bureau of Public Roads, and particularly investigations conducted by Dr. Westergard, at the University of Illinois. From the result of all the work that has been done along those lines, it is possible for us now to use formulas to determine the thickness of a pavement to carry a certain load, or conversely, to determine the load a pavement of certain thickness will carry. Mr. Clifford Older was a pretty prominent engineer, so far as I know. That was some years ago. He was one of the pioneers in the design of concrete pavements.

Redirect examination.

By Mr. Funkhouser:

As well as I recall, it was Mr. Older who was one of the first engineers to develop this theory of axle loads for highways. Comparing the highways of South Carolina with the highways of North Carolina, as to the ability to carry weights of these vehicles, I consider the highways of South Carolina, the concrete roads will carry the loads just as

satisfactorily, the same load, and without as much damage as they would in North Carolina. In fact, they have been carrying these loads and I think our North Carolina roads are in much worse condition than those over which I traveled in South Carolina.

I do not consider the condition of the roads in North Carolina to be due to those heavy trucks. There is quite a difference in the method of constructing concrete roads in North Carolina and South Carolina. I will be glad to explain it if you want me to go into it. There are so many things that cause the deterioration of a concrete pavement that it is impossible to say it is due to this cause or that [fol. 172] cause in any case. I would say in North Carolina we have subgrade conditions quite different from the subgrade conditions in South Carolina, for one thing. There is a wider topographical condition there in the mountain section. We have conditions quite different from other sections. From my observation, the subgrade conditions in South Carolina are most excellent. As to the weather conditions in South Carolina, as compared to North Carolina, of course, in North Carolina, in certain sections we have the frost going down quite deep into the ground and that makes quite a difference as to the qualities of a concrete road. There isn't much depth to the frost in South Carolina, if there is any in certain sections.

Evidence Introduced in Behalf of the Intervener, Interstate Commerce Commission

L. W. TELLER, a witness in behalf of the intervener, Interstate Commerce Commission, having been first duly sworn, testified:

Direct examination.

By Mr. Ross:

My name is L. W. Teller. My residence is in Chevy Chase, Maryland, a suburb of Washington. I am employed by the Bureau of Public Roads, as an engineer. For the past seventeen years I have been employed by the Bureau, in the Division of Tests, and for approximately ten years I have been in charge of their researches in pavement design. In the course of that work, we have conducted many

tests and research investigations endeavoring to develop information that would aid us in the better design of highways, and a better understanding of how highways function under the loads that they have to carry, and in the course of that work we have made stress determinations in [fol. 173] pavements in surface, as well as in pavements that were built for particular test purposes according to designs we have in mind.

For about ten years I have been in direct charge of the section of the Division of the Bureau which conducts those experiments and tests covering rigid types of pavement. I have two engineering degrees, Bachelor of Science of Civil Engineering and Civil Engineering, from George Washington University. I have perhaps twenty or twenty-five published papers on this general subject, many of them directly on this subject.

Q. Will you tell us a little more as to the purpose of those tests?

A. Our aim is to find out the loads of traffic and the other changes to which pavements are subjected; how we can use the material in the most economical way, and how we can construct these roads so that they will carry their burden with the least distress, and we have used the rigid pavement as an index because it is an elastic material,—concrete is an elastic material which is subject to engineering laws, and we can analyze the effects of loads on it, and we have used pavements of many designs and many thicknesses and applied loads to them in many ways in order to determine such things as the effect of the magnitude load, the effect of the area through which the load is applied to the pavement, and other factors that affect the final result, and we have measured the effect of those loads on the pavement by actually measuring the strain in the concrete; that is an index of the burden that we are putting on the pavement. We know how much we can stretch it when it breaks. We know how much we can stretch it and use it and not have it break. That is the general nature of our research. [fol. 174] Q. Have the results of those tests been utilized to any extent in the specifications and standards which the Bureau of Public Roads will approve for highway construction?

A. We are not the only ones that have been studying the effect of loads on pavements, although I believe we have

done more work than anyone else, but those results are published through our monthly research journal, Public Roads. They are also published in the proceedings of the highway research board, and those reports, with other reports, have an influence, although it is not always easy to say that from this year on the results of these tests caused certain changes in practice, but the evidence is that the information that has been developed by our tests and other tests has been applied in the pavement designs that are in use today.

Q. Did you hear Dr. Tucker's testimony as to the design and cross-section of the South Carolina paved roads?

A. I did.

Q. Does that conform with your information as to those cross-sections and designs in this state?

A. That is in accordance with my understanding of those designs.

Q. Do you have any information, or what information do you have as to the designing of the cross-sections of paved roads, generally, throughout the country with reference particularly to how much variation occurs? Speaking broadly, of course.

A. I will speak broadly, but it is in connection with my work. It is necessary that I keep fairly well informed as to what the practice is in the various states, and the design that was described by Professor Tucker is not radically different from the designs that are being used in the vast majority of the states in the country for concrete pavement [fol. 175] cross-sections. Really there is not a great range in thicknesses, as used in the states throughout the country.

In general, I would say that by far the greatest majority of states with sections, that in the interior the slab was from six to seven inches in thickness.

Q. The South Carolina design then would fall about in the average for the group, is that correct?

A. It would seem to me it is quite a typical design.

Q. Is it your opinion that it is the thickness of the center of this design or slab which is the governing factor in strength?

A. The edge of the thickness is important only if we can conceive that the wheels of these heavy vehicles are confined to the extreme edge of the pavement, and modern motor vehicle speeds,—we all know the majority of the loads are

not traveling along the extreme edge of the pavement, and in my opinion the effect of these loads on the interior area of the pavement is probably the critical condition we should consider.

Q. Will you state your opinion of what gross load the South Carolina paved roads we heard described, will stand?

A. Well, as has already been brought out, the gross load is not a factor in pavement design. The axle load is perhaps a better factor to use, but the critical factor on which a pavement must be designed is the wheel load, because we have no guarantee that even if we specify axle load that the axles will be equally loaded and the wheel load equally loaded. The load that is applied to the pavement through the wheel is the load for which the engineer must design the pavement.

Q. What wheel load then would it be your opinion the South Carolina paved road type described would stand [fol. 176] without undue stress or undue damage?

A. There are many factors that effect that relation of the wheel load to the structural behavior of the pavement, but in my opinion the application of a wheel load of the order of 8,000 pounds, through proper pneumatic tire equipment for that wheel load, would not stress the pavement within a half of its breaking strength.

Q. Do you have information as to what the wheel load restrictions are in effect in the majority of the states?

A. I am not an expert on that, either, but in this work that we do we try to keep pretty well informed as to that also. I have been in charge of the motor vehicle impact researches of the Bureau for a great many years, and that is an important part of that work, and my impression is that by far the large majority of the states will permit a wheel load of 8,000 pounds or more on proper tire equipment.

Examination by Mr. Funkhouser:

Mr. Thomas H. McDonald is Chief of the Bureau of Public Roads. To my knowledge, he has been connected with the Bureau since 1916. I can't give you a more exact date. He is the gentleman in charge of the Bureau that distributes the Federal aid to the various states. He functions through the Secretary of Agriculture, of course. It is a bureau of the Department of Agriculture. As such official,

I believe he has testified before Congress a number of times, and also before the Interstate Commerce Commission. He is my superior.

Cross-examination.

By Mr Griffith:

It is necessary for an engineer when he comes to construct a road and design it, to know what burdens it is going [fol. 177] to have to bear; that would be the starting point of paving design; like building a house, you must know when you start the foundation how much weight you are going to put on it. I have no knowledge of the designing of the highways of this State.

I knew Mr. Charles H. Moorefield, by reputation only. I believe his reputation was most excellent. I do not know what portion of the roads of this state are concrete roads. I do know that some of the roads within the State Highway System are what they call bituminous surfacing, because I saw some of them Sunday. So far as I know the weight that can be permitted on pavement of the bituminous type cannot be determined analytically or by tests. I do not know as to what weight should be permitted on them. I do not know as to the dirt type of roads within the State Highway System or anything about their designing or what weights they could properly bear; and, of course, I do not know anything about the mileage of these roads. I am not acquainted with the design of the bridges throughout the State Highway System of South Carolina.

(Asked to give his opinion as to what load the roads in South Carolina should bear, speaking of all the roads in the State Highway System:)

I don't believe that there is anyone that could go over the roads of any State Highway System and say that this road is good for so much, and this road is good for so much and the other road is good for so much. The concrete pavement is the only pavement that we have a means for rational design. The design of the other types must be based on the observation pavements of that type, under the conditions in which they have to serve under the traffic they are bearing, in my opinion.

My testimony so far as concrete pavements is concerned [fol. 178] is opinion based on a very considerable amount

of testing data. That is, data derived from tests conducted, with such records as we are talking about, on such type of pavement as we are talking about. I confine my opinions entirely to the concrete road. My testimony as to what these concrete roads can bear is my opinion based on test data, and I don't believe any other reputable engineer would come to another conclusion from those tests today.

I don't think that I made the statement that the gross load limit has no connection with the protection of the road. My statement was intended to convey the idea that when we came to design a concrete pavement, we were interested in the wheel load that was applied to that pavement, and not in the gross load of the vehicle concerned, provided, as was brought out before, that the axles carrying these vehicles are 40 inches or more apart, and that was established by tests made under my direction.

Q. Let me make it clearer. Under 20,000 pounds gross weight limitation, would it be possible ordinarily to put a greater load than 8,000 pounds on any one wheel; wouldn't that in itself——

A. (Interrupting:) I doubt it very much.

Q. That would limit the wheel load to a maximum of 8,000 pounds, wouldn't it?

A. I believe it would.

Q. That would limit the wheel load to a maximum, but it would permit just about such a weight, wouldn't it, on the ordinary two-axle?

A. I would expect to find about 6,000 pounds on the rear wheel, but there may be vehicles so constructed that there [fol. 179] is a larger proportion on the rear end than the normal vehicle.

Q. Do you know what percentage of the weight is on the front axle and rear axle?

A. I know we have weighed a good many of them. Recent designs have been changed and have changed the relation somewhat, but in general, there is from sixty-five to eighty percent of the load on the rear end. Now, the most recent data with which I am familiar, and the trucks we have been using in our tests, was that there was about one-third on the front end and about two thirds on the rear end when we had a capacity load on, and the reason for that was we had two tires on the rear and one on the front, and the designer figured each of those tires should carry the same load.

Q. But in your former testimony, you did find some of the vehicles carrying 80% of the load on the rear axle?

A. There have been such vehicles designed, I believe.

Redirect examination.

By Mr. Ross:

Q. My questions as to design of roads was directed to rigid type roads, I believe?

A. That's right.

Q. In most of your answers to counsel, he was talking about concrete roads. Is there any distinction there?

A. The rigid type road in our terminology covers pavements that have slab strength. The concrete pavement is the usual example of that, although a concrete base that carried a bituminous top, such as is used in some city pavement, might also be considered a rigid pavement, although composed of the two materials, but the rigid pavement type is confined to those that have slab strength, in our terminology.

[fol. 180] Q. So that when you were speaking of concrete roads, were you including this type you just talked about?

A. Well, we are talking about interurban roads, and interurban roads are not to any extent at all, so far as I know, built of anything but straight concrete pavement, where the rigid type is concerned. We find a few short sections of concrete bases with brick tops in some states. We find a few short sections of concrete bases, with bituminous top in some states, but by and large the rigid pavement as concerning interurban traffic is the concrete pavement.

H. R. Wilson, a witness in behalf of the intervener, Interstate Commerce Commission, testified:

Direct examination.

By Mr. Ross:

My name is H. R. Wilson, my residence Mt. Ranier, Md., a suburb of Washington. I am Chief Accountant of the Bureau of Public Roads.

(Referring to collection of sheets handed him.)

This is a certificate of the apportionment of funds for the improvement of roads on the Federal Aid Highways of the various states. They show altogether the amounts of money

that have been apportioned, year by year, to all the states in the Union under the Federal Aid, or other highway assistance. I summarized the figures shown on that sheet and they approximate two billion, seven hundred million dollars. Payments have been made to all the states, the District of Columbia, and Territory of Hawaii from appropriations available to the Bureau of Public Roads, from the fiscal year 1918 to October 31, 1936, in the amount of $2,197,634,970.13. There is about one-half billion dollars apportioned which has not been paid out. That covers roads now under construction, for which payments have not been made.

[fol. 181] Q. Have you made any tabulation taken from that information as to the payments made to the State of South Carolina under those acts?

A. Yes, sir.

Mr. Lyles: May it please the Court, we don't desire to disturb the equanimity of the testimony, but it does seem to us there should be some limit to this perfectly irrelevant testimony.

Judge Parker: If it is irrelevant it won't hurt you, and if it is relevant, the Supreme Court will have the benefit of it.

We have paid to the State of South Carolina from appropriations available to the Bureau of Public Roads $29,741,137.63. I cannot state the exact amount of money which has been apportioned to the State of South Carolina which has not yet been paid. It is approximately $10,000,000.00 more which has been authorized, or has been apportioned but not yet paid, and is waiting payment upon completion of the work. We have a statement of the mileage of highways and grade crossings projects in South Carolina improved with funds available from the Bureau of Public Roads as of October 31, 1936, which totals 2,797.8 miles. The statement shows the different type of roads. There are no duplications or overlapping in these figures. There is no duplication of pavement and no duplication of mileage either, because if the road was once improved under a certain type of construction and later had a higher type of construction on it, that mileage is accounted only once.

(Note—Plaintiffs' Exhibits 1-6 inclusive were introduced in evidence in connection with the testimony of this witness.)

[fol. 182] EMORY A. BOUDREAU, a witness in behalf of intervener, Interstate Commerce Commission, having been duly sworn, testified:

Direct examination.

By Mr. Ross:

My name is Emory A. Boudreau; my residence 5555 Thirty-Second St., N. W., Washington, D. C. I am employed with the Bureau of Motor Carriers, Interstate Commerce Commission, as Assistant Chief of the Section of Traffic, which position I have held since the Bureau was organized, a little over one year. My duties are those of General Assistant to the Chief of the Section of Traffic and administrative head of the tariffs. I assist in formulating rules and regulations covering the construction and filing and posting of carriers' tariffs and schedules; conduct hearings with carriers and shippers, and am a member of the Suspension Board of Carriers Classification Committee. I have had approximately seventeen years' experience in the transportation field, in the so-called trolley, freight or electric railroad; in the rail, water, steamship and motor carrier. Seven of the seventeen years were in construction of common carriers' rates and tariffs; five were with the motor carriers; the last two years of my employment in the field was with a cooperative motor trucks rate bureau in New England, representing some 800 motor carriers.

During my experience with the motor carrier industry, the common carrier regular route operators established their rates in cents per hundred pounds, and the common carrier irregular route operators established their rates by the trip. The advent of regulation has changed that practice, only with common carriers irregular route operators, who for simplicity of tariff publication, publish their rates [fol. 183] at so much per mile. That has not changed the basis for rate making, which is, in my opinion, the cost of operation per mile. It has not been my observation that the motor carriers with which I have been familiar apply a different cost for their different size vehicles; for lack of detailed costs and accounting system, an average cost per mile is applied on the vehicles regardless of their size. I would consider the size and gross weight of the motor vehicle would be determining factors in establishing rates, first because the pay-load is in relation to the gross weight

and, of course, covered by the net weight of the vehicle; and, second that the size of the vehicle controls the size of the body, and necessarily the cubicle displacement available for the loading of the merchandise. As to how the gross weight of a vehicle effects the rate, we will say the gross weight of the vehicle is 40,000 pounds restricted (and it is possible to purchase equipment today weighing net empty 16,000 pounds)—we will say that will permit 24,000 pounds pay-load. On the other hand if the gross weight restricted 20,000 pounds, and the equipment of itself weighing approximately 10,000 pounds, it will permit usually loaded approximately 10,000 pounds pay-load.

As to how this would effect the rate in cents per hundred pounds, I would have to use figures of comparison. While I haven't any figures available on the 20,000 pounds carrying capacity unit, I do have figures indicating 16,000 carrying capacity units that indicate approximately a cost of 23.81 per mile, and on a 24,000 pound carrying capacity unit an operating cost of 28.95 per mile.

[fol. 184] There is a difference of about 5¢ per mile cost in operating a vehicle that will carry 16,000 pounds pay load, as against one that will carry 24,000 pounds. These figures are the average for some five hundred operators and represent thousands of miles of observation, and I might say reflect a ten per cent profit in that cost. However, that might be different in this section here due to different conditions; that might be subject to some modifications.

I can give an illustration of such variation: Say a vehicle permitting 24,000 pounds pay-load, and operating one hundred miles, say at a rate of thirty cents per mile. There we would require $30.00 for the trip, and translated into cents per hundred pounds we would require a rate of 12½ cents per hundred pounds, while if the same vehicle cost thirty-three cents, or a differential of three cents per mile, we would require a revenue of $33.00, or in cents per hundred pounds, 13.9 cents.

Q. Now you indicated the difference of one and one-half cents per one hundred pounds for 100 miles and three cents a mile differential. A while ago you were showing a five cents differential. Would that mean approximately a three cents per hundred pounds per mile?

A. No, I had the comparison on the vehicles of same carrying capacity, whereas the five cents differential is between a vehicle of 16,000 pounds carrying capacity, as against 24,000 pounds carrying capacity.

Q. If a vehicle is 20,000 pounds gross weight, it would restrict your load to say 10,000 pounds, and the cost as you have stated is approximately 24 cents a mile to operate [fol. 185] this vehicle, how would the rate in cents per hundred pounds compare with the vehicle of say 40,000 pounds gross weight that restricts the pay-load to, I believe you said, 24,000 pounds, and which you said cost approximately 29 cents per mile to operate?

A. I can best answer that question by giving an illustration. Now the shortest distance over paved road from Asheville, North Carolina to Athens, Georgia, is by Greenville, South Carolina, for a distance of approximately 163 miles. A common carrier restricted to 40,000 pounds gross weight could handle canned goods, we will say, from and to these points at the rate of 19.07 per hundred pounds. If he was restricted to a 20,000 pound gross weight, because of its travel through the northwest corner of the State of South Carolina, he would require a rate of 38.08 per one hundred pounds.

Q. Let's take a carrier operating not through the state but into the state from a point like Richmond to Cheraw, or as compared with one operating to Wadesboro, North Carolina, outside of the State of South Carolina.

A. The distance from Richmond, Virginia, to Wadesboro, North Carolina, is approximately 290 miles. Between Richmond, Virginia, and Cheraw, South Carolina the distance is approximately 292 miles. Now while the carrier operates between Richmond, Virginia, and Wadesboro and restricted to 40,000 pounds gross weight would require a rate of 35 cents per one hundred pounds, on the same commodity between Richmond and Cheraw, because of the 20,000 pounds gross weight restriction, he would require a rate of 67.07 or a difference of 32.02 per one hun- [fol. 186] dred pounds for approximately two miles further to a South Carolina point.

Q. Are these actual rates you are quoting?

A. These rates are rates based on cost of operation, plus a reasonable profit, whereas the rates I understand filed through this territory, here were filed and are related to rail rates.

Q. But you are speaking of rates based on actual cost of operation?

A. That's right.

Q. With this same principle you have indicated as to the difference in rates that is necessary because of possible weight restrictions. Would that hold good as well in interstate operations from the north to the south and passing through South Carolina and going beyond?

A. The principle, the increased rate would be the same on traffic passing through South Carolina, although the rate might be lowered by the carrier if he established transfer arrangements at state line points, say like Rockingham, North Carolina, or Augusta, Georgia. Now the distance from Raleigh, North Carolina, and Macon, Georgia, is approximately 418 miles and if a carrier was restricted in his operation to 20,000 pounds gross weight, and he operated such equipment from terminal to terminal, he would require a rate of 99½ cents per one hundred pounds, whereas if he can operate 40,000 pounds from terminal to terminal the rate would be 50½ cents per one hundred pounds, or a difference of forty-nine cents.

Q. You have indicated there might be some different situation if he unloaded at the border and changed to a different type truck?

[fol. 187] Judge Parker: Don't you think you have pursued that far enough? What you wanted to show was this law placed a burden upon the carrier.

Mr. Ross: Yes, sir.

Judge Parker: You have shown that fully. It would result in an increase in rate. I don't think it makes much difference whether it is five cents or ten cents.

Mr. Ross: If your Honor please, there is one little matter I would like to clear up. He indicated unloading it at the border might change the situation.

Judge Parker: All right.

The Witness: With reference to unloading at the border, if a carrier established transfer points at Rockingham, North Carolina, and Augusta, Georgia, where he could transfer his loads from a 40,000 pound gross weight vehicle to a 20,000 pound gross weight vehicle, in order to cross the state of South Carolina, he would still require an increase of 20.9 cents, or 21 cents per one hundred pounds over the rate required if he is permitted to operate the

larger vehicle from terminal to terminal. In other words, he would require 72 cents for such transfer arrangement, as against 50½ cents if permitted to operate his 40,000 pound vehicle through.

Q. Then it is your opinion that the size of the vehicle is a determining factor in making a rate?

A. Very much so. Of course in these transfer examples I have cited I have not taken into consideration the cost of transfer, the possible cost of equipment or terminals that might have to be purchased at the transfer points.

[fol. 188] Cross-examination.

By Mr. Griffith:

I have a pretty broad general idea of the operations of motor carriers in all sections of the country. There are motor truck operators operating in the State of Texas, in the State of Kentucky, in the State of Tennessee; but I can't name one off-hand that would have to drive or traverse one of these states.

(In answer to question by Judge Glenn:)

The law in Texas is the same as it has been for some time as to weight limits, 14,000 pounds, so far as I know.

Judge Glenn: Are there any truck companies operating to any considerable extent in Texas and keeping going?

A. Well, so far as I know, I have heard of one operator who brought some court proceedings because he could not keep going, or he claimed that he stopped his operations because of the gross weight limitations.

A. B. Mahon, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live in Greenville, S. C. I am connected with Dunheen Mills located in Greenville, and Watts Mills located in Laurens, S. C., as Secretary and Assistant Manager. The volume of our sales is not less than $10,000,000.00, and not

less than 80% of our products is shipped by truck. The Poole Transportation Company and The Transportation, Inc., are the companies which haul our products, to Northern and Eastern points principally, New York City and vicinity. I am familiar with the South Carolina law limiting weights of trucks to 20,000 pounds. If that law is enforced, it will have an effect on the business of my com-
[fol. 189] panies. If other mills in other states making similar products are not subject to the same restrictions it will place us at a disadvantage in competition with them, because it would cost more to get our goods to the principal markets and delay them in transit. That means that it would cut down the flow of our products in interstate commerce. We would also lose our markets to some extent, and it would increase the cost of our products to the public. We ship, from the two mills, probably 50,000,000 pounds annually by truck to New York on short orders for quick delivery. There has been a remarkable change in the handling of textiles in the last few years, so far as time for delivery is concerned. I don't think the big cloth merchants in the centers keep stocks on hand as they formerly did. The companies serving us use large trucks only, carrying a pay-load of around 15,000 or 20,000 pounds; that does not include the weight of the truck. We are paying a rate of $1.15 per 100 pounds by truck on unfinished rayon, piece goods. The average weight of the cases that we ship in is 450 to 500 pounds each.

The development of motor transportation has effected the business of our mills. It has placed us in a better position to compete with other mills making similar products located in other states; most of such mills are located in North Carolina, Pennsylvania and the New England States. I think it would curtail our business if we were deprived of truck transportation. If trucks were compelled to load in two trucks instead of one, it would cause immediate delay in transit and probably increase the cost. I think it would have an effect on the number of our employees. We employ about 3700 now at these two mills, and if this law were
[fol. 190] enforced, I think the number of employees would be redueed.

The time consumed in transportation is a very important element in our business, because the buyers in New York who buy our goods, demand quick deliveries and place their orders where they can get the quickest deliveries. We can-

not get delivery over the railroad within the time our customers require, because they are accustomed to truck deliveries and expect quick deliveries.

I think that truck transportation has tended to reduce railroad rates. The rail rate to New York on the same product for which the truck is charging $1.15 per hundred is now $1.00 plus 8¢ emergency charge. The truck rate is higher than the railroad rate. I continue to ship by truck because it is faster and my purchasers demand it, and we get our money quicker. I consider motor transportation absolutely esential to our business. If mills making similar products in other states have motor transportation and are not subject to the same restrictions, it is imperative that we also have motor transportation for our goods.

I can only say that I think the railroad rate on rayon fabrics was $1.63 before the truck rate went into effect.

Our largest competitor in this southeastern section is the Burlington Mills, located in North Carolina and Virginia,—perhaps other mills in North Carolina,—but the Burlington is the largest group. We could not compete with that group successfully if truck transportation were eliminated. I believe that the advent of truck transportation had the effect of reducing the railroad rate of which I have just spoken.

What I have just said as to shipments leaving our mills applies also to shipments coming into our mills. The same [fol. 191] answers I have given apply to the Judson and other mills operating in this state on similar products. I have been delegated to speak for the Judson Mills today. Mr. Walter Grier, who is the official of the Judson, was expecting to be here but had to go to New York and asked me, if called upon, to speak for the Judson Mills.

JOHN L. WILKERSON, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live in Charlotte, N. C., and am engaged in the transfer and storage business, have been so engaged all of my life,—about 40 years. I am a member of the City Council of the city of Charlotte. I am what is known as an irregular

carrier, one who holds himself out at all times ready to go any place on call. We specialize in moving all household goods. In other words, we will come to your house in Chester this morning and pick it up as you leave it from breakfast and deliver it in New York City the next afternoon if you wish while you are making the trip in your car or by train.

I am president of the Allied Van Lines, made up of various operators all over the United States, consisting of about 500 members, agents of the Allied; President of the Household Carriers Bureau, which we have got together all or the majority at least of operators who handle household goods such as I do throughout the whole country and they have one bureau and one tariff. I use five trucks for my long distance moving of my own individual company in Charlotte. We have in the Bureau, of course, which represents about 2,000 participants, and naturally we have some 6,000 or 8,000 trucks that are covered by these participants in the Bureau.

[fol. 192] These trucks are specially constructed. In hauling household goods, you realize that is bulky and takes lots of space. We base our rate on the cubic foot, for example. The ordinary rooms in a home usually have about 200 cubic feet, or about 1,000 cubic feet to a 5-room bungalow. A 7-room house, of course, would run about 1,400 cubic feet. Well, to have a van handle any class household goods, you want it to be built rigid, you want it absolutely tight to prevent any dust or moisture whatsoever to get into it because it is carried out as it is taken up out of the house with proper pads. In handling it you have to have width and you will have weight in your equipment as well. The most of us use sleeper cab, which is made by the manufacturer, and really puts more weight on the vehicle by having the sleeper cab equipment. Altogether it would weigh over 20,000 pounds. As to the weight of these vehicles, speaking of most equipment, a van that will hold 1,000 cubic feet or move five rooms of furniture, weighs about 13,000 to 14,000 pounds. A 7-room van which we have weighs 19,300 pounds empty. The furniture weighs around seven pounds to the cubic foot, which makes 1,000 cubic feet of furniture weighing around 7,000 pounds, unless you have some extra books for lawyers, doctors, piano or

refrigerator coming in once in awhile. Altogether it would weigh over 20,000 pounds.

If the South Carolina law were enforced, I could use two pieces of equipment in South Carolina but for the fact that it is too wide,—we use mostly 96" equipment all over the country because that gives us the width of a room.

The railroads don't attempt to compete with me. I move most of the railroad people when they move from town to [fol. 193] town because they agree that I can do it very much more satisfactorily than they can. And I might say that I have a letter from Mr. Tilford of Atlanta, and you all know him, and he has no objection to our operation of household furniture moving. All we want is enough room to put a pay-load in there. We specialize in moving families of employees of large industries over the country, when they are moved from the main to a branch office or out in the country. We attempt to move a family with one haul. In other words, a family gets in a car and when they leave the furniture is put in the van as it is, and when they arrive the furniture is in the house. The average American home is a 5-room house. We can take that in one of our trucks,—for example, I am today loading in Boston coming down to Aiken, S. C.

I had the pleasure of moving my good friend, Mr. Jerry Wassum, from Charlotte to Columbia. He was Vice President of the Southern Railroad, now deceased. I could bring that down to Columbia for him, if I recall, for around $65.00 in the van, pick it up in his home and deliver it in his home here. Well, to prepare that for shipment in a baggage car, of course, which he could get, it would cost him around $85.00 to $100.00 to get that work done besides the hauling out at this end, and then he would be without his furniture some four or five days because it would take at least three days to crate the furniture, to prepare it for shipment, and naturally it has to come down to Columbia, perhaps overnight; but in a like shipment, I had a shipment that came locally from up in Massachusetts recently. It took ten days to come down, and yet we delivered it in Charlotte from up there in three days without pushing. We haul at a lower [fol 194] rate, which saves the public money.

This custom of the big industries moving their employees by big vans, when they have to transfer them from point to point, has grown in recent years. It has followed in the

wake of good roads and the development of automobiles. There are quite a number of people specializing, as we do in this country. I imagine, perhaps, as many as 1,000 throughout the country. That is the Association of which I am president.

As to the 90" width in the South Carolina law in connection with my business, 85% of the participants in our Bureau use a 96" width truck. It would mean, I guess that we would have to have a terminal about Charlotte and transfer there and bring down here various loads on smaller vehicles. The transfer of household goods is quite a hazard to household goods as you pick it up as you leave the home. For instance, lamp shades and pieces of that kind. It is a hazard to transfer them from one truck to another. Of course, it could be done. My business has developed from the development of good roads.

Cross-examination.

By Mr. Griffith:

The load that I carry only affects me as to whether I make money or not. It just increases the cost,—it increases the cost. We send two men on the van, and if we had to split the load, that would be four men. In all of our operations, we have to reduce the cost in every possible way. I pay my overload drivers from $23.00 to $25.00 per week, with an 8-hour day work, plus their expense while out on the road. I am not familiar with the railroad rates as to wages paid labor. If my wages were considerably higher that would also affect my business.

[fol. 195] The Allied Lines operate over the entire United States. I am making money.

Redirect examination.

By Mr. Funkhouser:

These big trucks cannot go into Tennessee, Texas and Alabama, but we have agents in those various states that, of course, have to have equipment suitable for those states. I suppose they keep it within the law of the state. They have to, I suppose. I am not able to say definitely, but I know they keep it within the law of the state. The law is not being rigidly enforced in those states.

Cross-examination.

By Mr. Griffith:

I did not say that we could go into a state in violation of its laws. There are a number of Allied Vans going into various states that carry more loads than they are allowed and are not bothered at all. They are no wider, because I don't believe there is a state that has width under 96". The Allied Vans do not make money any way they can. As to paying attention to State laws, it depends on just about like how the railroads operate in various states. That is how rigidly it is enforced.

W. R. Thompson, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live at Greenville, and am president of the Southern Handkerchief Manufacturing Company. I have been in the handkerchief manufacturing business about seven years. I was in the cotton mill business before that time, Treasurer of the Lancaster Cotton Mills, located in Lancaster, S. C. The handkerchief industry is comparatively a young industry in the South,—for about ten or twelve years. My [fol. 196] company was organized in 1929. It has developed keen competition. As to our main competitors, the handkerchief industry centers around New Jersey, with some rather important producers in Chicago. One of the main factors in this competi-on that I have been troubled with is the question of getting our products to the main markets at competitive prices. In the earlier years of the development of my business, my competitors had much advantage over my company in transportation. We had trouble in getting to the eastern markets. We had a freight rate to New York of $1.68, which put us at a very definite disadvantage compared to the eastern manufacturers. The rate to Chicago was $1.97; and the Texas points were particularly difficult to get into. We had difficulty in getting the proper freight rates from the railroads for our products, and it retarded our business; we made honest efforts to get our competitive

rates reduced by the railroads. The trucking companies have reduced their rates to New York from $1.68 to $1.00; Chicago, $1.25 from $1.97; St. Louis $1.25 from $1.95, I believe along that line. These reductions very definitely enabled us to meet our competitors in other states, and to some extent these trucking rates caused the railroads to reduce their rates. If the trucking companies were banished from the highways, or put in a position where they could not operate, it would have the effect of restoring railroad rates, it would hamper us. The railroads now have truck competitive rates to a number of points, but they have not yet met the truck competition to all points. It would increase the cost of our product to our customers. We feel that the reduced rates of the truck companies have very definitely [fol. 197] contributed to our expansion. If this truck transportation were taken away from us, I think we would stay in business, but I think we would probably be seriously hampered and have a greater difficulty in finding our markets.

We do not have an arrangement with a particular trucking company to carry our goods. We just ship whatever we have from day to day. Since the trucking companies came in interstate commerce, the tariff applying to all companies, we use a number of them and we still use the railroad and express companies as well.

The advantage accruing to our company, as the result of our opportunity to ship to Norfolk and South Carolina by truck, lies very largely in getting our goods to the Pacific ports and to the Texas points. We have great difficulty in gaining any immediate competition over Passaic, New Jersey, due to its close proximity to New York and the Pacific Coast. We have to pay a higher freight rate to Charleston. It was $1.10 as I recall, it is now 55¢. We have another advantage in shipping to those points by truck over railroads due to the fact that we can definitely get our goods to those ports in time for scheduled sailings for steamers. We could not be certain of that by railroad. The element of time is very definitely an important factor in our business. Our customers frequently call for quick deliveries; that is a new development in recent years as a result of trucks; in our judgment it is here to stay.

I could not say whether it would increase the cost of our product to our customers if the trucking company hauling our products were required to use smaller vehicles; I would

say that if they had to increase their rates to us, it would increase the cost of our products to our customers and put [fol. 198] us to a decided disadvantage. If our competitors in North Carolina or other states shipped by truck, and we were prevented from shipping by truck, that would cut us right off as to our markets.

D. C. Mason, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

Mr. Funkhouser: I would like to state to the Court what the purpose of this testimony will be. This is a gentleman sent here by the Town Council of his town, which is the town of Summerton, where they had a railroad and it has been abandoned and the tracks taken up and that the community is dependent upon truck transportation. I understand there is a community of 35,000 people.

The Witness: The county has 35,000 people in it and this directly affects 75% of them.

Mr. Funkhouser: I am putting on as a typical South Carolina community that will be without sufficient adequate service and I will connect this up with the others. I understand there are 980 other such communities as a result of the abandonment of the railroad.

Judge Glenn: This Court takes judicial notice that that railroad has been abandoned. It operated at a loss and went into receivership.

The Witness: The Northwestern Railroad of South Carolina formerly served my town, Summerton, Clarendon County. There are about 1200 people in the town, and 32,000 in the County. Our half of the County which was served by this railroad contained about 75% of that population. There were two railroads abandoned in the County, the Northwestern of South Carolina and the Alcolu Railroad out from Alcolu. The Northwestern ceased to operate August 13, [fol. 199] 1935. This community now depends entirely on trucks for transportation. Harvin Gray Lines is the trucking concern that gives that service, operating four trucks. Cotton is about the only thing produced in interstate commerce. Corn is moved to North Carolina. Cotton is one of

the larger products of the community. Prior to the truck, the cotton rate by rail to Charleston at one time figured about $2.40 a bale, that was several years ago; and has been gradually reduced so that when the railroad left there it was 70¢ a bale. The rate to Charleston now by truck is 50¢ a bale.

Judge Parker: I don't see that that affects Interstate Commerce hauling it to Charleston.

A. The same rate applies to any place in North Carolina proportionately.

Judge Parker: This regulation is perfectly valid so far as Intrastate commerce is concerned in South Carolina. Let's confine ourselves——

Judge Glenn: How many bales of cotton are sold annually on the Summerton market?

A. Around 5,000 at Summerton probably. 75% of that cotton was sent to North Carolina Mills this year, different mills around Charlotte and other places. The customary truck load this fall on shipments of cotton to the mills at Gastonia is 33 bales. That is 16,000 pounds gross. If the 20,000 pounds law were enforced it would cut the load to 22 bales and increase the cost 5¢ a bale to Charleston.

Judge Parker: What do you think about a 33-bale load? Do you think it is a hazard on the highway?

A. I don't see any difference in a 33-bale load of cotton than in any other moving van so far as size is concerned. There is a movement of corn out of that community to North [fol. 200] Carolina which is hauled by trucks in racks, and they move approximately 8 tons. The production of corn in our community has grown up since the trucking industry. That is something that never had been known—to sell corn to a mill in North Carolina.

The old railroad depot has been torn down and a filling station put there. Fertilizer is hauled in interstate commerce into our section from Savannah, Ga. It is important that fertilizer be hauled in by loads of over 10,000 pounds, so that the gross loads will be over 20,000 pounds. At the present rate we can get a 9-ton truck of fertilizer from Georgia to Summerton for $2.40 a ton. If you cut that down to five tons, it increases the cost per ton $2.00. The truck delivers that fertilizer right to the farmer's field. This is

a benefit rather than storing the fertilizer in a warehouse, as it saves the farmer the labor cost of coming for the fertilizer himself. If takes about five hours to bring fertilizer over the Southern Railway to our community. If a farmer orders it late one afternoon by truck, it is delivered the next morning and he goes to work. The railroads cannot offer that service at all now because we have no railroad.

PAUL SANDERS, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Beall:

I live at Ritter, am engaged in farming and have been so engaged all my life, produce principally what is known as "perishables"—vegetables, all of which is shipped in interstate commerce. As to the relationship between my business and truck transportation, I will make this statement. Prior to the advent of the movement of our products by truck, we had reached the point where we had concluded to quit, could not go on. We could not get the one thing [fol. 201] we have always cherished and tried to get—distribution. No way to get it and no way today except by movement of trucks. As long as we get distribution——

Judge Glenn: You mean delivery to live markets?

A. Yes. If we load a truck load of radishes and load about 400 packages very frequently the Washington market will not absorb more than 100 packages. They leave 100 packages there, go on to Baltimore, leave 100 there, then leave 100 at Philadelphia, and New York 100. We do that practically every day. We get that kind of distribution, and we reach small towns in that way that will not take a whole car load and reach towns that will handle a truck load where it could not handle a car load. Then we get this big advantage; we take a truck and go to the farmers, say, A., B., and C., our neighbors, six or eight miles from a railroad, and that same refrigerator truck goes in and serves those three or four or five farmers, loads one truck, thereby giving small farmers who heretofore could not get to the market—so that has been quite an advantage.

Now we are making joint shipments. We feel if you take the truck service away from us, and if we expect to remain in business we have either to go to North Carolina or some point north where we can continue in our vegetable production. We cannot meet competition without truck service.

If the South Carolina 20,000 pounds gross weight law is enforced, it would put us out entirely as to refrigerator trucks, because we cannot get a truck to go from our place to New York with a pay-load of less than 10,000 pounds. They cannot afford to take it. A truck could not get over 5,000 to 6,000 pounds pay load and comply with the South Carolina law. If we had no trucks, we could not ship by railroads, because we cannot get the distribution.

[fol. 202] Q. Tell the Court some of the factors that have existed in connection with the cost of getting stuff from the farm to the railroad and leaving it at the other end.

Judge Parker: Is this not cumulative of what Mr. Geraty said?

Mr. Coleman: Yes.

By Mr. Coleman:

Q. You heard the testimony of Mr. Geraty?
A. Yes.
Q. Do you adopt Mr. Geraty's testimony as to this?
A. Yes.

[fol. 203] J. K. MAYFIELD, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Coleman:

I am a truck farmer, living about fifty miles from Columbia at Denmark, S. C. I specialize in watermelons and canteloupes. As to how melon growing is affected by truck transportation and refrigerated trucks, to begin with, we practically went out of the truck growing business at Denmark because of the highness of the rates and slowness of the railroads. We can load 800 melons at our farm to Philadelphia. It would leave the farm at six in the afternoon and be there at midnight. The Federal Inspector would check these melons for crating and weight. Those

800 melons would weigh, say, an average of 25 or 30 pounds —a 20,000 pound pay-load. The smaller trucks simply cannot make the haul with this limited tonnage. I cannot tell you why, but we don't get quick service from the railroad. Quick service is important, because our products ripen quickly and suddenly, more particularly so with canteloupes. We have had extremely hot days, maybe Saturday we have loaded a truck load and then Sunday when it turns hot maybe 50% ripen just about in a few minutes. Then these would have to go out in a refrigerated truck to the market. Another thing, the market in the north wants fruit ripened on the vines now, because vine-ripened canteloupes we have been able to sell much better, particularly in Washington, Philadelphia and Baltimore. We can load them at our shed on the farm at six o'clock in the evening and they will be at the commission man's office at twelve o'clock. We load them Saturday afternoon at six o'clock and they will be at the commission man's for Monday morning's market. That is a new service possible through trucks, and we need the heavier weights to take care of the retail stuff that calls for refrigeration. You simply cannot ship watermelons on the small trucks. They are heavier and it is impossible for a man to get a pay load. The pay [fol. 204] load would be 20,000 pounds. These refrigerated trucks carry about 300 crates of canteloupes, then they have to have ice and the weight of the equipment on top of that, the pay load would be from eighteen to twenty thousand pounds. This is more so as to watermelons, because of their bulk.

C. B. Carley, a witness for the plaintiffs, having been first duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live at Yonge's Island, South Carolina. I have been with the Fruehoff Trailer Company, the world's oldest and largest manufacturer of trailers in Detroit, Michigan, and we think the world's best. I am one of their agents in South Carolina.

Q. That company is probably the largest manufacturer of trailers in the United States?

A. By far. I would like to explain one thing, that for fourteen years this month I have been connected directly with the sale and use of heavy vehicles. For a short period of time I tried to operate some trucks that came within the limit of South Carolina's 20,000 pounds, and I found out to my sorrow that it could not be done. I was in Tennessee when the other half of the new Mason-Dixon Line was constructed. I was employed there and had to leave; was transferred to Baltimore. I have sold the heaviest and most expensive and know the light, cheap truck. I would be glad to have you ask me questions. I am not a specialist, but have had a good deal of experience.

The standard size of the body of trucks used in interstate commerce generally is 96 inches. I would say from 85 to 90% of all trucks used in interstate commerce are 96 inches in width. With reference to the standard as to weight, the standard pay load is approximately ten tons and loaded in every state in the Union in safe vehicles with proper brakes and tires, except five. The width of 96 [fol. 205] inches, or greater, is allowed in every State except South Carolina. Florida and North Carolina recently changed to conform.

Judge Parker: Which five do not load ten tons pay load?

A. South Carolina, Tennessee, Kentucky, Alabama and Texas. They are all related to the Mason-Dixon Line.

Q. How about Mississippi and Alabama?

A. I included Alabama. Mississippi is low in which ten tons could be handled, I believe. They have an axle limitation.

As to my opinion as to what is the smallest truck that will safely carry a standard pay load, there are various opinions about that. I want to tell you in South Carolina today that there are a great many trucks that are bought to try to conform with this law and yet are being overloaded and unsafe. I want to point out that the gross weight of 20,000 pounds does not relate to safety at all—quite the contrary. A light weight bridge is not safe; neither is a light railroad car. A box car must be heavy to keep it from folding up, bending and sagging under a load. The same thing applies to trucks—four or five hundred pounds' difference in the weight with a proper set of brakes, and improper brakes in a trailer—those things all

enter in. The rates of men hauling in interstate commerce are based on the ten ton pay load.

(In Response to Questions from Judge Glenn): If one of the companies doing a big business, and having capital, would give my company an order for ten trucks conforming to the South Carolina law, we could manufacture them and sell them at a reasonable profit, depending on the cost of manufacture, but they would be manufactured to meet special conditions and at a naturally higher cost to us.

Judge Glenn: Would not after six months' or a year's time—take care of South Carolina business, and would they [fol. 206] not be able to consolidate it to haul it in these small trucks even at a slightly increased cost?

A. My opinion goes right along with the other gentlemen as to the increase in cost—about fifty to sixty per cent.

Judge Glenn: Even if the trucks were bought in considerable number instead of the spasmodic buying of one or two trucks?

A. Yes.

Judge Glenn: I am talking about cost of trucks. Suppose Mr. Barnwell's company would give you an order for ten trucks that would conform to South Carolina's law, at one time. Couldn't you make him a much better figure than he was talking about this morning?

A. Yes, sir; but on the other hand, the regulations applied in these few states, South Carolina, Alabama and so on, restrict the use of trucks in those states to a certain degree and therefore our market in those states is restricted still greater.

Judge Glenn: But you sell a lot of trucks like those to private individuals who do intrastate business almost entirely?

A. In South Carolina?

Judge Glenn: Everywhere, all over the country?

A. No, sir; our average trailer sale is 20 feet long—that is our average truck and rather large trailer.

Our smallest trailer is capable of carrying 7½ tons pay load; from that up to one hundred tons pay load, the largest we have. The one capable of carrying one hundred tons pay load was built for handling electric equipment—they got special permits for hauling them.

If this law were enforced, as to the effect on shipments

of tobacco from South Carolina—the principal tobacco market in North and South Carolina is Winston-Salem, [fol. 207] and that area, and it is approximately the same distance from Mullins, South Carolina, to Winston-Salem as from Washington, North Carolina, to Winston-Salem, and the farmer in the North Carolina area would have the advantage of the much cheaper transportation cost to Winston-Salem than his competitor in South Carolina. There would be a discrimination against the South Carolina shipment.

The modern refrigerator truck built by our company cannot be used in South Carolina, generally speaking. I have a photograph here and a certified copy of one of the vehicles that has been talked about here, which I sold for use in South Carolina, and it has been used in South Carolina. It is a modern refrigerated truck. It weighs 13,600 pounds. When it is loaded it would weigh 33,600 pounds, with a ten ton pay load. That would be legal in every state on the Atlantic seaboard except South Carolina. I would like to point out that North Carolina, Virginia, District of Columbia, Maryland, Delaware and all these other states tell these South Carolina farmers they can haul that ten ton pay load of vegetables, over their highways—"Yes, Mr. South Carolina Farmer, you can do that; put enough brakes, tires and lights and so forth on your vehicle to have it strong and safe * * *." The markets in the North require that kind of a load of refrigerated products in order to compete. The practical effect of the enforcement of the South Carolina law would not be to exclude tractors-semi-trailers entirely. The tractor semi-trailer can carry a little larger pay load under South Carolina law, because there is one thing in the law we haven't understood before, and that is this 10,000 pound axle limitation, which would make an actual gross weight of a four-wheel truck of only about 15,000 pounds, because you would only get about one-third on your axle.

Mr. Coleman: That is all.

The Witness: Could I have about two more minutes to explain something that is difficult to bring out in a question? [fol. 208] Judge Parker: All right.

The Witness: You are interested in the reasonableness or unreasonableness of the South Carolina law, and whether it actually does promote safety upon the highways. There

are hundreds of vehicles in South Carolina that will be legal if this 20,000 pound law is enforced, that are very unsafe, that could not go into North Carolina, because South Carolina in its hurry to pass this law overlooked applying brakes on semi-trailers. That is a very important matter. Semi-trailers aren't even required to have brakes in South Carolina, but they are in North Carolina, but this law wasn't enacted to improve safety.

Maryland has weight limitations graduated according to the weight of the vehicle. I have had experience there in that state. Here is a Ford truck that is handled by Cokers Wholesale Company; that vehicle is used almost entirely in interstate commerce. They made a very thorough study and did allow that vehicle approximately 30,000 pounds gross in Maryland and only 20,000 pounds in South Carolina. That vehicle has been inspected in Pennsylvania and has a Pennsylvania inspection certificate in its windshield, showing that it is properly equipped, yet it is going to be taken off the roads by this law, and hundreds of vehicles that couldn't meet that inspection will be left on the road, so is that law reasonable when it does such a thing as that?

J. S. Williamson, a witness for the defendants, after having been first duly sworn, testified:

Direct examination.

By Mr. Griffith:

I am Chief Engineer of the South Carolina State Highway Commission, and have held that position since July [fol. 209] 15th of last year. Mr. Charles H. Moorefield, my predecessor, held the position for about fifteen years. He died in April of this year.

The Witness then identified ("Defendants' Exhibit 7") a map of the State Highway System of South Carolina, on which, in addition to the regular printed matter, there is shown in red ink the roads in the construction of which Federal Aid Funds have been used at one time or another.

The Witness: This does not indicate that the entire cost of such roads was borne by the Federal Government—not more than 50 per cent of the cost came from Federal funds.

There are some few short sections, since the New Deal has been in, as to which we secured Federal money for the entire construction, but the majority of the roads have been built partly with State and partly with Federal funds. That practice has obtained since 1917, I think.

(The map in question was offered and received in evidence and marked "Defendants' Exhibit 7".)

We have approximately 60,000 miles of road in the State of South Carolina, and about 6,100 miles in the State Highway System—that is the latest estimate—so that our Highway System is approximately 10% of the road mileage in the State. The other road mileage is under the supervision of County and City authorities.

Q. Now, do you have different types of roads in your highway system?

A. Yes, we have roads classified as standard paving, bituminous surfacing, earth type and unimproved. That is the general classification that we give the roads.

Q. Can you give me the mileage in each classification?

A. At the end of the last fiscal year, June 30, 1936, our mileage of standard pavement was 2417; bituminous sur- [fol. 210] face, 1724, earth type 1141, and unimproved 666 miles.

Q. Now, in your standard type of concrete paving, does that include variations of concrete paving?

A. That includes what we call plain concrete pavement, that is, the whole surface is concrete. It includes asphalt pavement with concrete base. It includes asphalt pavement on asphalt base.

I think that the gentleman from the Bureau of Roads was about right when he testified that the concrete road is the one road for which there is a formula to determine its strength. There is no definite formula by which to determine the strength of other types of roads; we use our experience in determining the thickness, etc.

Q. Will you tell us the approximate mileage out of the 2,400 which is concrete throughout, and the approximate amount of variations?

A. I don't believe I have that right now, Mr. Griffith. The concrete mileage is probably 75 or 80 per cent of the total.

Q. The concrete is about 75 or 80 per cent of the total?

A. Yes, sir.

Q. So, you would say then that you would have somewhere in the neighborhood of 1,800 to 2,000 miles of concrete paving?

A. Yes, sir.

Q. Now, as to the dependability of the different types, how do they vary?

A. We have some of the oldest pavement in the State which are asphalt pavement on concrete base that are giving satisfactory service.

Q. We have some old concrete pavement that is giving good service?

A. Yes; however, the concrete surface has more tendency to break up than the asphalt pavement. We have more [fol. 211] breaking, that is, a visible breaking. There may be breakings in the base under the asphalt pavement that are not noticeable.

Q. What is your opinion as to the load that these concrete roads may safely bear?

A. That is very indefinite.

Q. Why so?

A. That will depend on a number of different things. The sub-grade conditions is a very big factor entering into it. Some concrete pavement in one section may hold up 100,000 pounds. The same identical pavement, as far as construction goes, may break up under a two or three thousand pound load.

Q. Do those sub-grade conditions occur right along in the same territory of short distances?

A. It occurs very often in short distances of one another on the same road.

Leaving out the concrete roads, and asphalt combined with concrete, our next best type of road is the bituminous surfacing. In recent years we have constructed considerable mileage of that type. So far as weight or stress goes, the ability to withstand weight, that is more or less an earth type road with an all weather wear or surface on the top. It is constructed by building an earth type base of some local material, that is, with proper clay and sand content to make a good tight hard base that water will not soak through, and moisture will not soak through and won't get soft when wet or dust out when dry, then in placing an asphalt wearing surface about three-fourths inches thick. This wearing surface merely gives a roof to the pavement,

though the base is what carries the load. Of course, this is nothing more than an earth type road with a cover over it. That is exactly what it is. The base is usually eight inches thick, but there are variations from that; where we nor-
[fol. 212] mally see that there is a bad sub-grade condition we have increased that up to approximately 12 inches in short sections. Where it is very noticeable that we have a bad condition, that is, gumbo, wet clay, water seeping, we have increased that base thickness. These roads are primarily designed for automobile traffic. They are not well adapted to heavy loads or to steel tires or horse drawn vehicles. Horse drawn vehicles, steel tire vehicles, will injure the surface, cut through the surface. When you break the seal of that surface, you are apt to have failures. We have been constructing those since 1924, and on a large scale only recently. We have gone to that type of construction rather than to the concrete type on account of the financial situation. That type can be constructed at a much cheaper price than the concrete pavement, and due to the lack of funds and the demand from the public generally to get them out of the mud and dust, we have had to take what funds we had and spread it over a large mileage, and that is about the only way we figured we could do it in order to get all weather roads. These bituminous surface roads are about one-third of the mileage in our State Highway System; we have about 1,700 miles of them. We have about as much earth type and unimproved roads as we have surfacing, not quite one-third.

My experience and observation as to how these bituminous roads hold up under heavy traffic is that in the places where we have had unusually heavy traffic, we have had considerable failures. And we have had other failures. Various things can happen—your subgrade condition and that always comes into it, it is always a factor. You get a base, a subgrade, wet and spongy, and particularly in the clay which changes in volume, which causes trouble, and when you have got a subgrade of this type of road, if it gets wet, of course, any heavy load will mash the sur-
[fol. 213] facing down into it more readily than a light weight on it.

Q. Have you had opportunity to compare a road standing light traffic constructed with bituminous surfacing, and afterwards being subjected to heavy motor vehicle traffic?

A. Yes. In 1935 we completed a section of State Road No. 33 between Tillman and Hardeeville of this bituminous type on sand clay base, and in the fall of that year, shortly after it was constructed and opened to traffic, it was necessary to do some repair work on Route 17 between Ridgeland and Hardeeville, and in order to do that repair work we had to detour the traffic from Hardeeville up to Tillman over this new construction, surface treated road, and the traffic on that road immediately caused failures and ruts were developed in the surfacing. The wheels of the trucks would sink down in there and the shoulders were pushed up. As a result of that, we have had to do considerable repair work on that road, and I believe we spent in the last 12 months as unusual repair on that road in the amount of $12,378.00 in order to put the road back into shape. The traffic was only detoured over that section for two or three weeks and since we have got the repair work done we have had practically no trouble on that road since.

Q. You say you detoured heavy traffic over that particular section of bituminous road. The main road that was closed and caused this detour, what kind of traffic has it been subjected to?

A. It carries practically all the load of the traffic that comes into South Carolina out of Savannah, the automobile traffic, and motor truck traffic. All the traffic practically that comes into South Carolina from Savannah goes over that route.

[fol. 214] Q. And you say you had detoured them over this bituminous surfacing for two or three weeks?

A. Just a few weeks. Also we had a section of route 15 which is one of our main routes through the State. We have two sections of that type, the bituminous type, one in Clarendon County from Summerton to the Sumter County line, and the other in Marlboro County from Society Hill to Bennettsville. Those sections of roads were constructed in 1933, and have been open to traffic continuously since. Our regular schedule on roads of this type is to place a re-treatment on them—we have set up a sort of schedule of about every five to six years to take care of the wear and irregularities that might develop in it normally from traffic. Both of these sections of road that I named, it was necessary for us to retreat them both this year, which is only three years. They

were only three years old, so that on account of the heavier traffic on that route, it was necessary to retreat those sections about two or three years earlier than we would normally have done. Other roads that were constructed that same year have not yet been retreated. We have quite a number constructed earlier than that have not been retreated yet.

I cannot say that I definitely know, except in a general way, the roads which bear the most of this heavy truck traffic. All of them are subjected to some. There are trucks on practically every road in the State, it has been my observation. There are some trucks on every road, every station that I come to.

Q. I will ask you this question. Are there not other routes over the State over which there is some of this bituminous surfacing, or other weak type of road?

[fol. 215] A. Right off hand, I think we have some section like that on practically every road in the state. There is either a light bridge or piece of bituminous surfacing or pavement, or surface treatment of some kind on practically every road we have got throughout the State.

Q. Now, just in that connection, Professor Tucker • • •

Judge Parker: I wish to clarify that a little. I know something about South Carolina roads—the road that goes from Columbia and strikes the North Carolina line and goes through Augusta, the road that goes from Florence to Charleston, the road that goes from North Carolina to Greenville, are they weak in spots—are there weak spots on those roads?

A. Route No. 1 going through the State, we have a bituminous surface road from Cheraw to the North Carolina line. We also have a very weak bridge at Cheraw. We have just recently let a contract to build a new bridge at that section. The balance of Route #1 is of what we call standard pavement. We have some concrete paving. We also have some asphalt paving on concrete base. We have some of that type about ten miles north of Camden with asphalt paving and goes through Columbia and stops.

Judge Parker: Isn't that sheet asphalt with concrete foundation?

A. Yes, sir, we class that as standard paving. It isn't all sheet asphalt. Some of it is. This section from Columbia

to the County line, that is asphalt with concrete base and the same thing from Columbia to Batesburg, sheet asphalt, concrete base. The balance of that road is plain concrete paving.

Judge Parker: You spoke of a weak bridge—what do you mean by that?

[fol. 216] A. That is a bridge that is not safe for more than ten tons.

Judge Parker: I am speaking about this particular bridge you are speaking about, at Cheraw.

A. That bridge at Cheraw is unsafe for over five tons, and part of that bridge is an old covered bridge that was built three years ago. It is one of the old relics of the State. That is the only covered bridge in the State highway system now.

Q. What about your road from Wilmington, N. C., to Charleston by Florence?

A. That is, coming in by Dillon and Florence? You cross the Pee Dee River at Mars Bluff and you have a bridge there that is not good for more than two tons. We are rebuilding it now.

Judge Glenn: That is the one we rowed about a few years ago?

A. The Mars Bluff, yes, sir. We are rebuilding the bridge, but the overflow bridge on the Marion side is practically rotted down and we have a contract to rebuild that bridge. It is not safe to motor traffic. The bridge was not designed to carry more than ten tons. At that section they ought not to have built a bridge like that. I would not build it like that, certainly at that location. It is a very poor location. The road from Charlotte down by Gaffney and Spartanburg to Greenville, that is, route 29,—that is standard paving most of the way. We have concrete paving north of Gaffney; between Gaffney and Cowpens at Thickety Creek we have a bridge that is only fifteen feet wide. We have only rails. We are contemplating rebuilding that bridge probably next year, and the strength of that bridge—[fol. 217] that is one of the first bridges built by the State Highway Department and it was designed for a ten ton load.

Judge Parker: You are an engineer. Will it support ten tons?

A. I would not say it would safely support it. It may stretch beyond the limit of stretch and a few loads go over it and then a lighter load will drop through it sometimes, a horse and wagon may drop through it after a heavy load has gone over it. That is one bridge we are contemplating rebuilding. We have under construction now a relocation there out of Greenville between Greenville and Spartanburg. It is so rough you cannot hardly get through there. It is narrow and it is not safe for the traffic. This road is one where we have lots of accidents, fatal accidents. We are relocating that road and building a bridge. The road below Anderson at the Georgia line, there is an old steel bridge built as a toll bridge back in the horse and buggy days, it is still there in use and I just got a letter from the Georgia Highway Engineer this morning, or this week rather, asking that we consider that in our construction for another year. I told him we would be glad to do it as soon as we could get hold of the money to build it. The alignment of that bridge is particularly bad on the Georgia end. You hit a place at the end of the bridge, and the bridge is light steel construction, built by a private individual for the purpose of making money out of it on the toll and he built it as cheap as he could get by with. The bridge isn't safe for certainly over ten tons.

Judge Parker: Are there any arteries of interstate commerce in South Carolina where there are any such places?

A. Yes.

[fol. 218] Judge Parker: Are there any other arteries other than the three routes I have mentioned?

A. Yes, you might consider the road from Augusta up through Greenwood. The Greenville and Henderson and Asheville road. That road generally is a pretty good road. The bridge crosses the Savannah River to Augusta. We have plans under way now to construct that bridge. There again the State of South Carolina has already set up an allotment and Georgia is going to handle that work and we specified we had to get all our contracts through before the money became available. We have the money available now to construct that bridge which is a weak bridge in there.

Judge Parker: Are there any other weak bridges on those routes?

A. I do not recall any other weak bridges. There are some timber bridges in Greenwood County between Greenwood and Ware Shoals that are not safe for over ten tons.

Judge Parker: I had in mind this: that in view of this testimony—I don't know what may be disclosed—it appears here that the wheel load is the criterion with respect to load on pavement and with respect to weights. It seems to me the total weight of the truck is the important factor and the Legislature would have a right to consider that, as well as the strength of the pavement.

A. Yes, that is a very important factor because the bridge, particularly if a trestle, if you have a 200 foot span, that span has got to stand the total load that goes across it regardless of whether there are three axles, two axles or one. The whole load will then be on that span at one time, and we have quite a number of spans more than 200 feet in length [fol. 219] from one pier to the other.

Judge Glenn: Yes, that road that goes over by Rosinville to Sumter is used quite extensively?

A. Yes, I think that road probably carries more interstate traffic than any other continuous road through the State. We have other routes that have heavier traffic immediately adjacent to towns between Spartanburg and Greenville, the traffic generally is heavier there. The road immediately out of Charleston towards Orangeburg, traffic is quite heavy there, and from Aiken to Augusta the traffic there is heavy, but they are mostly short sections, but this route by Rosinville, Sumter and Bennettsville carries pretty heavy traffic all the way through, and we have a number of weak bridges on that as well as weak sections of surface treated roads that I have just described.

By Mr. Griffith:

Q. I was asking you to trace the road that Professor Tucker said he traveled. He said he left Charlotte and went to Spartanburg. Did he encounter any weak bridges and sections of road there?

A. Yes, a weak bridge at Thickety Creek. That is route 29. That is the bridge we contemplate rebuilding next year.

Q. From Spartanburg to Greenville?

A. Spartanburg to Greenville there are several narrow bridges, the ones we have had several accidents on. They are concrete bridges about eighteen feet wide. We have had one rail broken off of them and quite a number of accidents against them. There is a place between Greenville and Taylor, a place we have under construction and relocation to get the traffic off the road. That is very inadequate. That is under construction now and it is very heavy traffic, and as I understand, the road we are building is designed to carry two to twenty trucks traveling behind each other twenty feet apart.

[fol. 220] Q. You found it necessary to accommodate the traffic there?

A. Yes, and we have to contract for grading two grades over the Southern and the P. & N. railroads. We have not let the contract for paving, but that will be let.

Judge Glenn: You are building the bridges now?

A. Yes, sir, we are building that grade over the Southern. We are building the bridge.

Judge Glenn: What about all this talk about a new super highway from Greenville to Spartanburg?

A. That is part of it. We are also contemplating letting some building out of Spartanburg, and I except we will keep on until it meets in the middle. With the funds we now have, we will be able to do it, but we can not go into it all at once. We have to go at it gradually.

By Mr. Griffith:

Q. From Greenville down to Anderson?

A. From Greenville to Anderson there are two roads in there. I don't know which road he followed. If he went by what we call Dunner's bridge, Route 81, that is bituminous surface road practically all the way within a mile of Anderson. The other road by Piedmont, Pelzer, Williston, is concrete pavement. There is no particularly week place on that.

Q. From Anderson to Greenwood?

A. From Anderson to Greenwood, I presume he went by Belton and Honea Path, Donalds and Hodges. In Hodges we have a piece of surface treatment for about a mile, and there are three grade crossings there in Hodges, two over the Southern and one over the P. & N.

Q. Have you a project for a program for building or for probably letting a contract to rebuild it sometime soon?
[fol. 221] A. Our plans for rebuilding that will be for surface treating, that is bituminous surface through that section from Hodges into Greenwood. We have a contract under way now in the City of Greenwood where we have completely torn up the old pavement as it was and replacing that with new concrete paving.

Q. You mean the pavement in Greenwood gave way?

A. Yes, it was practically worn out and hammered out, and when we got there to move it out, we found it was very little trouble to shovel it out.

Q. In practically all of these routes, regardless of where they are, don't they pass through towns and cities?

A. Yes, we have tried in a few places to build by them, and sometimes we have. One of the most noticeable is your city of Newberry. We built a road past that town and it does not necessitate all of the traffic going into the town.

Judge Glenn: And Ridgeway.

A. Yes, built two in Ridgeway, and now building a third one.

By Mr. Griffith:

Q. In passing through those towns, you don't construct the roads through the towns?

A. Generally not, particularly if they are towns of over 2,500.

Q. So in towns of over 2,500 you have no authority under the law to build them?

A. Except under certain restrictions that such law permits. The law permits us to build roads in towns over 2,500, provided the houses average more than 200 feet apart on both sides. So going through a thick settled town, about all we do is to go around. Sometimes we get a few blocks. Of course, under the National Recovery Act [fol. 222] where we got Federal funds, they provided funds for municipalities, and where Federal funds are furnished we have gone into the town and built some povement, like Greenwood.

Judge Glenn: That place in Greenwood?

A. Yes, I say this, under the National Recovery Act where the Federal Government furnished all the money, Federal

money, the Act provided that 25% of the money allocated had to be spent in the town. We have spent some in them. We spent some in Columbia, Greenwood, Spartanburg and Anderson.

By Mr. Griffith:

Q. In using the streets of the cities and towns, how are they constructed, have they been designed for heavy traffic?

A. Mr. Griffith, my experience with the city work is that the pavements are not as well constructed, if I might say so, as the ones that we construct today. The city pavements, the most of them, were constructed years ago. They did not probably know as much about paving as I think we know now, although I think we know very little, but their design—they built thinner pavement, for instance, a good part of the city work a few years ago, standard construction, was four inches concrete base with a 2½ inch asphalt on that surface; whereas now when we construct a road of that type we put a six inch concrete base, which is a 50% thicker concrete base, with a three inch asphalt surface, which gives a nine inch pavement against what they had, 6½ inches, and not even that, probably due to the inspection or otherwise. A good many cities' pavements are not even that thick. Some of this pavement we have torn up where they have had four inches, or an inch or an inch and a half, or two inches.

[fol. 223] Q. They were not designed for anything much more than passenger traffic?

A. I cannot say what they were designed for, but that is what I would think they were designed for. I have had experience in city work. I have done some of it back in 1920, and we had very few heavy loads at that time, and what we wanted was to get the streets paved so the people could ride in their automobiles and get them out of the mud and dust. That was the main thought at that time.

Q. In order to save a little time, I will not ask you to complete the route traveled by Professor Tucker. The conditions which you have named up until now on that route about weak bridges and over bituminous surfacing, that applies generally throughout the State, does it now?

A. Yes, about the average. On some routes we have many more weak places than on others.

Q. Now, you also have stretches of unpaved dirt public roads scattered through your highway system?

A. Yes, sir.

Q. For instance, at your prominent city of Newberry to Chester—aren't they connected by a dirt road?

A. Yes, we have a part of that road—it is quite a long road out of Chester—from Chester to Rock Hill still a dirt road. We entered into a reimbursement agreement, but it has not been done. There are quite a number of weak bridges on that road that we are going to reconstruct.

Q. That is the Calhoun highway?

A. Yes, that is one of the principal highways. That is not the Calhoun highway, no, sir, but that is a section of route 9, which is one of our longest routes in the State. It [fol. 224] goes to Spartanburg and continues through the northern part of the State to Little River on the Coast. That is one of the longest routes we have in the State.

Q. You have other sections in the state scattered through your highway system?

A. Yes, sir.

Q. Would you say that that type of road is designed to carry heavy traffic?

A. Top soil road?

Q. Yes.

A. Oh, no, sir, particularly in wet weather. You put a heavy load, even a three or four ton load on an earth type road in wet weather, it is liable to tear it to pieces.

Q. What about having axles 40 inches apart on that dirt type road?

A. It depends on how much you put on the axle. You can put as much on the axle as on the single truck, the weight on the axle is what does the damage to your road, the wheels. You can have numerous axles, and if all of them are heavily loaded, you will have damage, of course.

Q. As to your dirt type road . . .

Judge Parker: The actual distribution of weight—in other words, if you had four axles on a truck, each axle carries one-fourth of the weight if it is evenly divided, that is true if you have ten tons and four axles.

A. Yes, sir.

Judge Glenn: Let me ask you about this. If the axles are spaced 40 inches apart, if the strain from one wheel will be absorbed, but the other wheel strikes some spot

on the ordinary concrete road, is that true of the other road, the dirt road?

[fol. 225] A. Not so much because you have not beam strength on the dirt road. You may hit a soft spot, there is no beam strength that you can see in an earth type road. That is an entirely different character. A concrete road gives a little beam strength that the load is distributed over. A wet area section, I think that is fatal to the dirt road.

Judge Parker: Mr. Williamson, in your policy—you spoke of the Thickety Creek bridge for example, in your policy of strengthening these weak bridges for construction, have you given any priority to those bridges on the main routes which carry heavy traffic, or have you followed the policy of strengthening the weak bridges in the state roads?

A. Just so say we pick one against the other, I cannot say we do. We may have a one-way bridge in a side road that we have constructed and did not reconstruct the bridge.

Judge Glenn: I mean in choosing the weak bridges to repair, have you sought to repair those on the roads carrying the most interstate and intrastate traffic, or have you discriminated against those bridges?

A. We do not wish to discriminate, but it is our policy to go back on the roads we have reconstructed and to give priority to the weak bridges.

By Mr. Griffith:

Q. I ask you this question. I think it is a question of law, but under the State Highway Act were you required by the State Highway Department to do work in every judicial circuit?

A. Yes, sir.

Judge Glenn: That is true, but you haven't made the point I am getting at. The bridge between Spartanburg and Greenville, the Thickety Creek bridge, for example, is on one of the roads that these gentlemen are most interested in. Have you as a policy, discriminated against the early [fol. 226] strengthening of such a bridge, or have you rather favored the strengthening of such a bridge—the bridges that are most important in the highway system?

A. I don't know that we have discriminated against them.

Judge Glenn: Have you sought to meet the needs of the heavy traffic, regardless of where it is, or have you discriminated against it?

A. We have probably done some of both. We have sought to meet the needs of the people, getting the people out of the mud and dirt. That is our main object, and we have tried to get back to those other bridges as fast as we can. We have widened a good many little narrow bridges on the main road between Charleston and Orangeburg, and we widened quite a number of bridges that were necessary.

Judge Glenn: I put the question in a leading form. Your haven't tried to discriminate against trucks moving in interstate commerce in your policy of repairing weak bridges?

A. No, sir.

By Mr. Griffith:

Q. As a matter of fact, you are handicapped by lack of funds, isn't that your situation?

A. Yes, sir.

Q. You haven't got the money?

A. If we had the money to go ahead and strengthen all of them and to widen them, we would be only too glad to do so.

Q. You like to build good roads and bridges?

A. Yes, that is my profession and my practice.

Judge Glenn: Would you rather build one that is going to be used a little than one that is not going to be used at all?

A. Absolutely I would.

[fol. 227] By Mr. Griffith:

Q. Now, I was asking you about streets of cities and towns, as to that construction, have you observed that they have been damaged or cut up by heavy traffic?

A. Yes, I know this, that I have gone into several towns with this National Recovery fund, and have torn up some of the old streets in the city and put down new pavements and I have very often had requests from various towns to come down there and help us out, that the heavy traffic is tearing up the streets. We go back and we have torn up

and replaced pavements in several places and resurfaced a good many others.

Q. Now, if you were to continue a program of building concrete roads, would you be able to complete your highway system nearly as early?

A. No, not without we had funds a lot faster.

Q. In the present situation?

A. No.

Q. Is that the reason you departed from the concrete roads?

A. Largely. And we have spread out on what we say are secondary roads that don't carry heavy traffic, but lack of funds and wanting to spread the money over as large a margin as we could is the reason we are building more of that type than the concrete.

Q. Are all the revenues received by the State Department, motor vehicles, are they applied to road construction?

A. Yes, and road maintenance and retirement of bonds.

By Mr. Bell: What year are you speaking of—what period are you covering?

[fol. 228] A. Any period since we have been getting all of the revenues.

Q. You never have deferred any highway funds to other than highway purposes?

A. Yes.

Q. Are you sure of that?

A. Yes.

Q. You make reports to the Bureau of Public Roads on that matter?

A. As far as I know, we never have spent anything other than one cent on gasoline tax going to the County. The Highway Department gets the motor vehicle fees and five cents tax.

Q. The counties have about 90% of the roads to maintain and build?

A. Yes.

Q. Now how much has the State built in the highway system?

A. We have a system now that we estimate at about $111,000,000.

Q. How much has the Federal Government contributed?

A. Of that, about $25,000,000. Now the Federal Govern-

ment has contributed some prior to that. We got Federal aid prior to 1925, and we ran about $4,000,000 extra.

Judge Glenn: I thought those figures put in evidence yesterday showed $39,000,000.00.

A. I think $29,000,000.00 is about right.

Mr. Funkhouser: $10,000,000.00 allocated but not yet spent.

A. But this $25,000,000.00 is of the $111,000,000.00. If you run up to 1929, we have to run up $111,000,000.00, and we do not have that figured.

[fol. 229] By Mr. Griffith:

Q. How much bridge mileage do you have in the State Highway System?

A. About fifty.

Q. About fifty miles of bridgework?

A. Of all types.

Q. What percentage of that mileage would you say has been designed to carry a load not in excess of ten tons?

A. Probably around 75%, I would think. I have not checked that up accurately.

Q. How does the cost of bridge construction compare with the road construction—is it a substantial item, the bridge cost?

A. It is a very substantial item. The cost of bridges runs anywhere from $50.00 a lineal foot up to $200.00. The average price is between $80.00 and $100.00 for a 20-foot width bridge.

Q. How about road cost?

A. The pavement costs have been running between $30,000.00 and $35,000.00 a mile. That is a little less than the bridges.

Judge Parker: I am troubled about this. I understand until three years ago you could load 40,000 pound loads on the bridges. Do you have any failures, or did you have failures of bridges at that time?

A. Well, on the timber bridges particularly, we were constantly having to replace boards. Some of them, we had to put extra stringers in them, and in the maintenance of our bridges we tried to keep them up, but we have not

had any failures on the concrete steel bridges we have built.

Q. How long have you been connected with the State Highway System?

A. About fourteen years.

[fol. 230] Q. Did the Highway System make any recommendation to lower the weight of trucks?

A. Mr. Moorefield I believe made recommendations to the Legislature along that line.

Q. When was that?

A. In 1931, I believe.

Q. He recommended that the weight be lowered?

A. Yes.

Judge Glenn: Was there any control to that at all?

A. I don't remember the law then.

Judge Glenn: That was the first law they had?

A. I believe so.

Judge Glenn: They were putting an initial limit on it?

A. Yes.

[fol. 231] By Mr. Griffith:

Q. Do you find in your files a written statement which Mr. Moorefield prepared for the investigating committee?

A. Yes.

Q. Will you produce that please? I wish to call attention—I don't have the particular reference—I wish to call the attention of the Court to the special Act of the Legislature authorizing the investigation of motor vehicle transportation in 1931. We now desire to introduce in evidence a typed statement which Mr. Moorefield presented before that investigating committee.

Mr. Fun-houser: If there were certain statements picked out of the testimony before the Legislative Committee, it seems to me that we should have the whole benefit of the testimony instead of certain statements because there may be statements otherwise that we might wish to use.

Mr. Griffith: We have a report of that committee, the statements taken by that committee, and we offer that in evidence, but we want Mr. Moorefield's typewritten statement because it is contained in there in full.

Judge Parker: Why is that not competent and proper, Mr. Funkhouser?

Mr. Funkhouser: I thought probably there might be modified statements in the whole testimony. They might pick out what was favorable and the Court would not have the benefit of the background of the questions asked.

Mr. Griffith: You want the whole record to go in?

Mr. Funkhouser: I don't mind if they put the whole of the record in.

Judge Parker: If he has the whole, I think it is all competent because we are investigating the reasonableness of the Act of the Legislature.

Mr. Griffith: This is all we have and all that was taken, as far as we know.

[fol. 232] Judge Glenn: We have not got to the point yet of having stenographers take down everything the Legislative Committees say.

Mr. Griffith: We offer the whole record.

Judge Parker: Right at this point, are there any points that you want to make—if so read them.

Mr. Griffith: I would like to read the entire statement. It all bears on highway costs and the problems facing the state.

Judge Parker: Read such parts as are pertinent.

Mr. Blease: I suggest that we get through with Mr. Williamson before you read this.

Here defendant introduced statement presented by Mr. Moorefield, Chief Highway Engineer, before the South Carolina Legislative Investigating Committee being defendant's Exhibit Number 8.

By Mr. Griffith:

Q. Now, Mr. Williamson, as to the load that these concrete roads will carry. Have you had any experience and observation as to their weakening in any places?

A. Yes. We have had failures in concrete pavements. We have had corner breaks in the system at times. That is usually a pretty good failure, I mean the corner breaks—two head joints together with expansion strip between them and the outer edge of one of those corners breaks. We have quite a number of those about all over the State. We have had systems practically adjacent to bridges and over fills

and causeways and some places we have had no failures at all. We have had very good results.

Q. You have had like experience as to bridges too?

A. Yes.

Q. Now will you give us the width of the road?

A. Most of our pavements are eighteen feet in width. We have some twenty feet and some sixteen feet There is one little stretch in Sumter County that is only nine feet wide. That is a concrete pavement. Now in bituminous surface our roads are twenty feet and wider. The standard [fol. 233] is twenty feet and we sometimes widen where adjacent and close to towns or through different communities. The standard is twenty feet.

Q. How about dirt roads?

A. We surface them about twenty feet.

Q. With respect to the county roads, about which we have been speaking—there are various types of roads and bridges throughout the county?

A. Yes, some improved and some unimproved.

Q. Some weak and some strong?

A. Yes, and that is particularly true with bridges.

Q. In your highway system have you taken over some roads which were actually paved by the county?

A. Yes.

Q. That is old paving, is it not?

A. Yes.

Q. Let me ask you this as an engineer: Does not an engineer have to know the weight the road is going to have to bear in order to design that road?

A. That is desirable to know, of course.

Q. Is that not the only purpose of his designing?

A. Yes, it is.

Q. Would you say that an enormous amount of truck traffic, the evolution as the plaintiffs call it,—did you contemplate it as an engineer back in the old days in building those early roads?

A. We did not know about that then.

Q. Are those old roads scattered all throughout the highway system—that is they are not all combined in one road?

A. That is true. There is not much mileage of that. Most of the state highway has been constructed by the State Highway System. Sumter, Anderson, Greenville, Richland and Charleston are practically the only counties that had

any roads paved prior to the state highway department.

Q. I am asking you about the old streets. Are they narrow or wide?

A. Some are wide and some are very narrow.

[fol. 234] Q. Take as an illustration the town of Newberry. When a long truck comes through that town and turns one of the corners, how much of the street does he take?

A. At the corner of the Exchange Bank Building that is a pretty narrow intersection and it takes a good bit of the street there for an automobile and truck to pass.

Q. A long truck would have difficulty in turning that corner, as a matter of fact?

A I think so.

Q. And those conditions apply in other towns?

A. Yes, we have quite a number of towns with narrow streets.

Q. Charleston is particularly an example of narrow streets, but I believe Columbia is generally about as wide as any city in the State.

A. That is true.

* * * * * * *

Q. In the construction of your paved roads, do they have a center joint?

A. The ones we are constructing now do have. The earlier days they did not have. We began center-joint construction about 1929 or 1930. The roads constructed prior to that did not have center joints.

Q. Could you give a rough estimate of how much of the 2400 miles does have the center joints?

A. About 40% has center joint, and concrete pavement.

Q. What are the thicknesses?

A. We have two thicknesses; one is eight inches at the edge and six and a half at the center. The other is seven and a half at the edge and six inches at the center Those are our two. We have used the thicker centers generally on relocations, fills, causeways, and so forth, and the thinner section where we follow an old road or cut centers.

Q. What do you know about the strength of concrete?

[fol. 235] A. Very little—that is in a way. We make tests of pouring concrete when we pour it, for its compressive strength and things of that nature, but as to what load a concrete pavement will hold up, that is pretty indefinite.

Judge Parker: There is no doubt about these new roads you build on main highways supporting the loads of the heavier trucks?

A. How heavy?

Judge Parker: 18,000 pounds per axle.

A. I would think so; if we have good conditions they should support that without trouble.

By Mr. Griffith:

Q. You, of course, don't know the construction of the roads which you took over from various counties?

A. No.

Q. You all did not have anything to do with that?

A. No, we have been maintaining them, except I do know this that in Anderson County I know about the construction of those particular roads there.

Cross-examination.

By Mr. Funkhouser:

Q. In which state would you say are the better sub-soil conditions, North Carolina or South Carolina?

A. I would judge generally that they are about the same. We have several different classes. We have sand subgrade along the coast, and some gumbo sections in our state, sand hills, mountainous sections and clay. North Carolina is somewhat similarly located; they go from the mountains to the coast.

Q. On your main through highways is it not a fact that you have a very good sub-soil condition, but which will let water drain off?

A. In some sections, yes. I would say the conditions on route one is about the best that we have.

Q. Is it not also true in South Carolina that you have a lesser problem with frost than North Carolina has?

A. Generally speaking yes.

Q. Frost does not go as deep?

A. We of course have roads going to Caesar's Head in [fol. 236] the mountains though where the temperature goes to zero.

Q. But the frost is not deep enough in this state to disturb your roads?

A. Last year we had probably more trouble with them than in a number of years. We had more ice and snow last year.

Q. But that is an exceptional year?

A. Yes, it was exceptional

Q. Is it not a fact that your roads in this state are well constructed?

A. I think we enjoy the reputation of having as good roads as anyone in the country, of which we are very proud.

Q. Is it not also a fact that your county roads were built at greater thicknesses than a number of people thought it was necessary to build them and there was a lot of criticism and talk about it?

A. I don't know that.

Q. In your opinion does a heavy bus going at a high rate of speed do as much damage to a highway as a heavy truck?

A. It depends on the weight and the smoothness of the pavement.

Q. Let's take this situation—take a truck weighing exactly the same as a bus, both of them over 20,000 pounds, going at the same rate, will one do more damage than the other?

A. I don't think so, if they have the same wheel loads.

Q. Really the test is whether the wheel load or axle weight does the damage.

A. The wheel load is what comes in contact with the pavement. If you have rubber against concrete, regardless of what is above it, traveling at the same speed I think you have the same result.

Q. It is the axle weight or wheel load that counts?

A. On the pavement, it is. Under other conditions it would not.

Q. Why is it that the buses in South Carolina are exempt from the law and the trucks not, if they both do the same amount of damage?

A. The Legislature permits the buses to operate. We are abiding by what the Legislature does. They are our bosses.

Q. Was that upon the recommendation of the State Highway Department?

A. No.

Q. Did Mr. Moorefield recommend it?

A. Mr. Moorefield was dead when they passed that law, I think.

[fol. 237] Q. When did he die?

A. April of this year, and that law was passed shortly after that.

Q. You mean the buses were exempted at the last Legislature?

A. Yes. They permitted the width to increase from 90 to 96 inches on buses at the 1936 Legislature. They were ninety before that.

Q. The weight law does not apply to buses either?

A. I don't know.

Q. But you think one does as much damage as the other?

A. If the conditions are equal.

Q. The buses weigh considerable—those going from Florida to New York are pretty heavy weights?

A. I judge so.

Q. They have been running over the bridges on the main highways?

A. Yes.

Q. You have not heard of them going through the bridges?

A. No, I haven't heard of any going through as yet.

Q. You have not heard of any trucks going through those bridges?

A. We have had floors to break on bridges from time to time, and they have knocked the handrails off very often. That is one of the biggest damages we have had from them.

Q. What axle weight did you recommend on route number one?

A. It depends on what you mean by route number one—taking it all the way through, we have surface treatment on that road.

Q. Get down to the general proposition—you have a highway in the State known as route number one that is traveled by buses and the public generally using automobiles?

A. Yes.

Q. What axle weight can the road carry before the road would be damaged?

A. You mean for the full length of the road?

Q. I mean as to the law of the State.

Judge Glenn: To be fair to you, he has testified there is a small section on the northern end where there is one

very weak bridge—you are talking about the ninety per cent.

A. Of course to make a recommendation on that, my idea of the road is just like the old saying that a chain is [fol. 238] no stronger than its weakest link. A road is no stronger that its weakest section. If you recommend for the weak road, probably 5,000 or 6,000 pounds axle load would be plenty high for that particular section. Other sections it might go even higher than that. When we get that section reconstructed up there at Cheraw like we have under contract now, that will eliminate the only weak spot on that road.

Q. Assuming that 90% of the road has no weak spots. What axle weight would you recommend for that?

A. I would think 12,000 or 13,000 pounds axle weight could be used without doing any material damage to the road.

Q. Is it not a fact that they have been running axle weights of sixteen to eighteen thousand pounds over that road and the 90% has not been damaged as yet?

A. That is true, but we have damage, probably, there that has not shown up as yet.

Q. How long is this weak spot on route No. 1?

A. About six or seven miles.

Q. How long is route No. 1?

A. Between 140 and 150 miles.

Q. It is the whole length across the state?

A. Yes.

Q. Do you know how wide the state is at the point traversed by that road?

A. It is about 150 miles—about 70 miles to Augusta and about that to Cheraw.

Q. Would you keep traffic off that 150 miles because of the weak spot to which you referred?

A. If traffic is going to bog down in the weak spots and block the whole route of traffic, I don't think it would be safe to permit loads going through that might absolutely close the road which should be used by at least 90% of the traffic.

Q. Is it not a fact that these weak spots can be strengthened?

A. Sure, and we are doing that now. We have a contract here now to get rid of that weak place, but it may be two years before we get it completed.

Q. And that weak place has not as yet bogged down?
[fol. 239] A. Yes, sir, there has been considerable trouble there. We have had water over that road in Marlboro County six or seven times within the early part of the year; when heavy loads went in they would get stuck, bog up and practically close the road to other traffic. We had to detour the traffic.

Q. You had some floods in South Carolina several years ago?

A. Yes. In 1928 and 1929 South Carolina had considerable floods and we are threatened with some this year.

Q. Did not the Federal Government appropriate money to repair damages to the highways?

A. We had some flood relief money.

Q. How much did you get?

A. I don't remember the amount now.

Q. But you got enough to repair the roads?

A. We spent what we could. We did not get enough to build all the bridges we would like to have built by any reason, however.

Q. There is now allocated to your state and not used, ten million dollars of Federal funds for your roads.

A. That sounds a little high to me. I don't know that we have any that has not been used. We are working under Federal, W. P. A and National program funds.

Q. In addition to the Federal allocation I understand you have emergency and N. R. A. money.

A. Yes.

Q. Don't you know that ten million dollars of the Federal Aid has not been expended by your State?

A. We have to go by that ten million dollars—we have 1938 and 1939 Federal Aid that will be coming up. We are spending Federal Aid on the bridge on route one at Cheraw.

Q. The bridges that you have stated are weak you are now repairing?

A. Yes; we are trying to go back and rebuild and rewiden bridges where they are too narrow or too weak.

Q. Don't you think you have the best highway system of any state in the southeast?

A. I say we enjoy that reputation and are glad to hear other people tell us that is true.

[fol. 240] Q. Do you, as Chief Engineer of the State Highway System, think that is true?

A. I think we have the best roads I have driven through.
Q. In the southeastern part of the country?
A. Yes, that is right.

Judge Parker: What good will that do if you have a very splendid road and on that road you have — weak bridge that will not bear more than a ten-ton load, or in the opinion of the Legislature will not bear more than a ten-ton load? I am addressing this question to you.

Mr. Funkhouser: My answer to that now is that originally that bridge may have been designed to carry a ten ton load, but the policy of his department, which he stated, is to repair the bridges and highway as the traffic increases, in order to carry traffic regardless of the theory or philosophy on which the road was built, and they are actually carrying the traffic at this time. They are carrying big buses going sixty or seventy miles per hour over the State, and the fact is that if the plans and specifications call for ten-ton bridges, these bridges have been strengthened to carry the traffic, and have been for years.

Judge Northcott: This witness testified positively that this bridge was a weak spot in route one, and is not safe in its present condition for more than ten tons, if I understood his testimony.

Mr. Funkhouser: If the witness is correct, my theory is wrong.

Judge Glenn: Your answer to that is that some of the big buses, say over 20,000 pounds, going over it day in and out, may any day put it out of regular schedule.

A. Yes. And some of these days one of those bridges may fall in and be too late to correct it. That is the reason we want to build it now before we have any catastrophes of that kind. It is not safe to let them continue. A heavy truck may go through all right, and yet a wagon may follow behind and break it in. It is sometimes what we call the "last straw."

[fol. 241] By Mr. Funkhouser:

Q. What test have you made on the bridges to determine the conclusions about which you have just testified?

A. We have measured them up, taken the size of the timbers, steel, and so forth in them, and worked them out from a formula to determine what is a safe load that does

not put a load on there that it will not carry. All bridges are designed for certain loadings, and in making that design you figure them to a certain degree of safety. We may say a bridge for ten tons, but a twelve or fifteen ton truck may go over it a few times, yet we figure that is not even safe.

Mr. Funkhouser: What tests, if any, have you made to determine how much that bridge of which you are talking, will carry?

A. We have made inspections of it and measured it up, and worked it sort of backwards from what you would to design it. Several years ago we made a survey of all the bridges in the State, and from that survey we figured up what at that time we figured was a safe loading.

Q. So you made measurements?

A. Yes.

Q. And you came to the conclusion that it would not be safe for anything over ten ton trucks?

A. Yes.

Q. What have you done to strengthen that bridge since you came to that conclusion?

A. We have replaced the floor of that bridge a time or two I think. I think we put a bat or two under it. We have strengthened the underpinning on it.

Q. Have you strengthened the bridge since you came to that conclusion?

A. We have strengthened it from time to time, and even if we do strengthen it that would not make the bridge safe over that road. We strengthened the bridge to keep it up.

Q. Will you please answer me my question? Have you or not strengthened that bridge since you came to the conclusion it was not safe for vehicles of more than ten tons?

A. I don't recall when that was done.

Q. Was it within the last year?

A. We have strengthened it from time to time—you see [fol. 242] we have had floods and have had to strengthen it.

Q. And you have been strengthening it from time to time?

A. Yes.

Q. And you have not wanted to leave the public in any danger?

A. No, we tried to keep it safe.

Q. And you have strengthened it to meet the demands of the traffic?

A. Right.

Q. So, after your inspection and you found that it was safe for only ten tons, you have brought it up to the necessary strength to carry the traffic of today?

A. I don't think so, but we try to keep it as safe as we can to carry the traffic by so doing.

Q. Is it safe to carry those buses that go through there to Florida?

A. They are passing over it.

Q. In your opinion?

A. I would say it is not too safe.

Q. If you know about it, have there been any warning signs put up there that the bridge is unsafe?

A. No.

Q. Or any warning to the officials of the companies operating those buses that it was unsafe?

A. No.

Q. So you, as Chief Engineer of the State Highway Department, feeling that that bridge is unsafe to carry passengers across, never have warned anyone?

A. We have tried to keep it strengthened so that no one would fall in.

Q. Is that not the answer—whatever design that bridge was built for, it has been strengthened to carry the traffic that passes over it, and the demands of the traffic.

A. It is carrying it but it may fall in at any time. I will be very glad when a new bridge is placed there. I will be glad when we can dismantle that old one, because it is more or less of a hazard.

Q. Have you any sign on that bridge as to what load it will carry?

A. I don't recall.

Q. Don't you know that you have not got one on it?

A. I have not been across it right recently.

[fol. 243] Q. Have you taken any steps to put one on it?

A. I don't remember that exactly, either.

Q. So, with that grave danger to the lives of the traveling public, you don't recall whether you have taken time to put up a danger sign there?

A. I don't think we have put up one there.

Q. You know you have not. It is not a question of thinking?

A. I don't recall.

Q. Is not what you have testified as to this particular bridge true generally as to all of the weak bridges of which you have spoken that you have strengthened them as the demands of the traffic needed?

A. Yes, in a limited way that is true. We have a number of bridges that are narrow and we have not been able to do anything about widening them. We have lots of narrow bridges that we have tried to widen, but you really have to rebuild them.

Q. You are widening them as you get to them?

A. Yes.

Q. And it takes sometime to follow out a well-planned program?

A. Yes, with plenty of funds it takes time to follow out even a well-planned program, but I hope some day we will have them all corrected.

Q. What would you recommend as to the limit of the axle weight or wheel weight of trucks and buses traveling on the highways of this state?

A. On our standard pavement I think the axle weight of around 13,000 pounds would be about right, not exceeding that, and even with that we have roads that that would be too much for.

Q. What?

A. We have roads that even 13,000 pounds axle loadings would be too heavy for.

Q. I am talking generally about your highways—do you say 12,000 or 13,000 pounds per axle?

A. Yes.

Q. Do you think your roads will carry that much?

A. Our pavements will.

Q. And the vehicles of greater axle weights are going [fol. 244] over the whole road now?

A. Yes, and we are having some failures.

Q. Can you say that those failures are due to trucks and buses, as a highway engineer?

A. They are due to a number of causes. That is probably one cause—subgrade conditions, floods, and a little frost of course, but I do know that we have this situation I described down at Tillman, where we have been detouring heavy traffic off of No. 17; it put ruts in it, and we are trying to prevent that now.

Q. After that occurred, did you strengthen that road?

A. Yes, we spent about $12,000 fixing that road up.

Q. And you testified in chief that you have not had any trouble.

A. Yes, but they have not had that traffic on it.

Q. So, if there is a failure on the highway, you strengthen that to meet the demands of travel?

A. Yes.

Q. And that is just like any other industry—for instance if there is a failure of machinery they strengthen or replace it?

A. Yes.

Q. I believe you stated that you recommend an axle weight of 12,000 or 13,000 pounds per axle for these highways?

A. I think that is about right, particularly for our pavements, but we have roads in the state that will not bear that.

Q. Please answer my question. Can you carry an axle weight in this state of 12,000 pounds with a gross limit of 20,000 pounds?

Judge Glenn: We will take his testimony in connection with the testimony of the other witnesses. Some of them testified the unit would weight ten or twelve thousand pounds, and therefore it would not afford over 8,000 pounds pay load.

By Mr. Funkhouser:

Q. I show you a drawing here of a particular trailer combination, and as I understand from the testimony of the engineer, if there is an axle weight of 12,000 pounds on each of the two rear, there would be 6,000 on the front, making a total of 30,000 pounds. Would you think the roads would be sufficiently strong to carry that?

[fol. 245] A. As far as the pavements are concerned, they would get by with 12,000 axle load, just as well as 20,000 gross on two axles with maybe 16,000 pounds. You see that 20,000 pounds gross load, as I understand, you can probably put 80% of that on each axle, which would make a 16,000 pound axle load. As far as the pavements are concerned, that 16,000 pound load would be more stress than the 12,000.

Q. The pavement carries all right the 16,000 pound load?

A. I think some have been going over at more than that.

Judge Parker: Did you not tell me you thought that the better roads were carrying 18,000 axle loads?

A. They probably will under good subgrade conditions. As a matter of fact, they had a train wreck at Allendale and the engine of the train went on across the pavement without breaking up the pavement. But that is a very good condition of the pavement there.

By Mr. Funkhouser:

Q. Mr. Williamson, I believe you stated that to take this bridge that was designed for ten ton trucks—did you design that bridge for that or for more than that?

A. More than that.

Q. How long is that bridge?

A. I don't recall.

Q. Approximately.

A. It is probably three or four hundred feet.

Q. Then that bridge, 300 feet long, would stand ten 10 ton trucks, each truck being ten feet long?

A. Our normal procedure in designing bridges for loadings is to have trailer trucks pass, one in each line of traffic, about thirty feet between them. So you have a long span that you can probably put several of the trucks in that span.

Q. If it is 300 feet long, how many ten ton trucks under the way the bridge would be designed will it carry?

A. I will say the length of the spans are not that long. Each individual span would have to carry its own load.

Q. So you can have a number of ten ton trucks?

[fol. 246] A. Yes.

Q. What is the difference in having two ten ton trucks one following the other than having a tractor trailer following each other?

A. With the same loads?

Q. Yes.

A. On the bridge there, the effect of it would be practically the same. The total load is what counts on there.

Q. Do you know the American Association of State Highway Officials?

A. Yes, sir, I know that organization.

Q. I believe some of your highway officials are members of that organization?

A. Yes, sir.

Q. Are you a member?

A. Yes, sir.

Q. Do you know the formula adopted by that Association for determining the load that a bridge should carry?

A. I don't remember. I know there is a formula. I don't remember it off hand.

Q. Isn't it true that the approved engineers' practice is to design bridges according to that formula?

A. Yes, sir.

Q. You say you don't remember if off hand?

A. Yes, sir.

Q. Isn't it true that total gross weight, which is represented by W. equals coefficient times L., plus 40?

A. That sounds like it.

Q. Aren't you designing all your bridges in this State according to that formula?

A. Yes, that is our formula, I believe, in designing our bridges.

Q. Doesn't that formula of W. equal C. times L. plus 40 give you the same strength for bridges that the 18,000 pounds axle weight does for highways?

A. I don't follow you exactly on that: I don't know.

Q. You don't know? Are any of your bridges in the State designed according to that formula today?

A. That is probably the formula we use.

[fol. 247] Q. How long have you been using that formula?

A. I cannot say that either.

Q. You have been using it for some years?

A. We have had every design of bridge construction to keep up with the progress of the times, and the changing, and I think we have kept pretty well along with the Association's recommendations.

Q. Is that the formula used by the Bureau of Roads?

A. I think so.

Q. And isn't that the formula that the Bureau of Roads requires to be used when you get Federal Aid money?

A. Yes, when we design our bridges for Federal aid, that is the formula we use. We use the plans and specifications that they approve.

Judge Glenn: They have to approve them before they give you the money?

A. That is right.

By Mr. Funkhouser:

Q. Doesn't that formula for bridges take care of any loads for 16,000 pounds per axle weight, it takes care of the wheel weights?

A. I think so. We design our roads as prescribed by the Federal Bureau. Our bridges we build now are designed for heavier loads than a few years ago.

Q. The bridges on those Federal Aid roads will carry the loads according to that formula?

A. The ones built by that formula, yes.

Q. That is not my question. Those curved places and shoulders carry loads according to that formula?

A. Some of them are not.

Judge Parker: He didn't ask you that question. He asked you whether they would carry it, not whether they were built for it?

A. Not all of them, no.

By Mr. Funkhouser:

Q. Which ones won-t, of the arteries across the State?

A. That depends on whether we build them as Federal projects or not.

Q. I am talking about Federal aid?

A. The Federal aid bridges throughout the State on the [fol. 248] main arte- traffic?

Q. Aren't the main arteries Federal aid projects?

A. No, sir.

Q. Aren't the main arteries across this State federal aid highways?

A. Generally yes, but it is not all with Federal aid money. Some of them are constructed with State money.

Q. I am asking you about the main arteries across the State; are they Federal aid highways?

A. Some of them are, yes.

Q. I ask you specifically?

Judge Parker: Answer the question direct Aren't those main arteries across the State—you said many of them were Federal aid projects.

A. Not Federal aid projects. We have constructed roads in the Federal aid system without Federal Aid.

Judge Glenn: They are all roads constructed by Federal aid, but there may be miles in them which have some other history than actual Federal aid.

A. I remember Black River out of Manning—we constructed that road a few years ago with Federal aid, and made exceptions to the bridges. The bridges were not constructed with Federal aid. That is very often the case. If we have a bridge on the road that we feel is adequate to carry the traffic, we omit the bridge.

Judge Glenn: The bridge at Catawba River at Rock Hill was built before Federal aid was ever heard of and it is adequate today, but not a Federal bridge. That is what you are talking about?

A. Yes, sir.

By Mr. Funkhouser:

Q. Is route 17 a Federal aid highway?
A. Yes, sir, I think so.
Q. Is route 15 a Federal aid Highway?
A. Yes.
Q. Is route 29 a Federal aid highway?
A. Yes, sir.
[fol. 249] Q. Is route 21 a Federal aid highway?
A. Yes, sir.
Q. Aren't those main arteries or highways that are used by interstate commerce crossing this State?
A. Yes, sir.
Q. And isn't it a fact that the bridges on those particular roads will all carry the traffic that the formula designs, to-wit: W equals C times L plus 40—your bridges?
A. No, sir I don't think so.
Q. Which ones are not?
A. No. 1, you see, that bridge at Cheraw is one.
Q. That is being repaired?
A. That is on number 1. When we get it built the new bridge it will, but the bridge under its present condition won-t. No. 17, for instance, we have a number of creosote timber bridges through Ridgeland and Hardeville; they aren't safe for very heavy loading.
Q. These bridges are now carrying the traffic that goes across them?
A. Yes, sir.

Q. And have been carrying it ever since the Federal aid roads were built, haven't they?

A. Yes, sir.

Q. And that bridge of which you spoke is the bridge you stated you strengthened?

A. Yes, sir.

Mr. Ross: May I ask the witness a few questions?

By Mr. Ross:

Q. Is there any authority in the State of South Carolina for the highway department, or any other authority to change the limits which the Legislature has put on weight and size? Is my question plain?

A. I don't believe the question is clear.

Q. Does your Commission or Department have any authority to change the weight and size and restrictions to meet special needs?

A. I don't know of any like that.

Q. It requires an Act of the Legislature to change that?

[fol. 250] A. Yes, sir.

Q. Does the State Legislature give the State Highway engineer authority to issue permits to move certain vehicles?

A. The loads which are beyond the limits as specified by law, a permit for a special movement? We issue those from time to time, yes. A load that is excessive in width and weight, under certain conditions we issue special permits for their movement.

Q. Speaking now from the standpoint of the observation of the State Highways, in your judgment would it not be a practical thing and a desirable thing to have some agency either the State or Federal, to have some authority to change these restrictions from time to time to meet special conditions that might arise?

A. I don't know just what you are driving at. It would if you had a specific maximum limit for some reason—a road might get into such a condition that it would not be suitable for carrying that load, it might be desirable that we had some quick way of changing it so as to take care of that particular situation.

Q. To change the weight to relate to the law?

A. Yes, such as we might have a flood, or a wash-out of the bridge and couldn't get the road back very quickly to take care of the maximum load as allowed.

Q. Wouldn't it be a practical thing for your Department to recommend some agency that had the power to change the restrictions, either to lower them or bring them up to meet the special conditions as they might change from time to time?

A. That might probably get a little complicated; it might be a little difficult to enforce. That could, of course, be worked out, I think.

Q. Suppose you had an extremely bad road, or an unusually bad condition, wouldn't it be a practical thing if somebody had the power in your department to study the facts and make a recommendation and put them into effect to save the roads?

A. I think so. It would be a very good thing to do so for a period of 30 to 60 days or something like that. That may be as long as necessary, and then put the limitation on.

By Mr. Funkhouser:

[fol. 251] Q. Isn't it a fact that the South Carolina Act Prohibits tractor-semi-trailers having 12,000 pounds on each axle?

A. Prohibits that?

Q. Yes.

A. I don't know. I am not familiar with the law on that.

Q. You don't know about that?

A. No, sir, I have nothing to do with the law enforcement. That is work I am not so up to date on.

Q. You know that the law does not permit over 20,000 pounds gross load, do you not?

A. Yes, sir.

Q. And you don't know there is a 10,000 pound axle limit on vehicles with more than two axles?

A. I don't remember that.

Q. And you don't know whether or not you can carry 12,000 pounds on an axle, do you?

A. Under the present law?

Q. Yes.

A. I don't know, sir.

Q. But you think that the roads will stand an axle weight of 12,000 or 13,000?

A. The pavements will.

Q. And lots of them are going over the other highways that are not paved, isn't that true?

A. Yes, a good many of them are and some of those are in force.

Q. If you take a tractor-semi-trailer with an axle weight of 12,000 pounds per axle, then you would have a gross load of 30,000 pounds?

A. If you put 12,000 on two of them and 6000 on the others it will make it 30,000 pounds.

Q. Wouldn't that be safe?

A. The paving would stand that load, I think.

Q. How about a four wheel truck and you have 16,000 pounds on the rear axle, how about that, is that safe?

A. A 16,000 pound loading will damage the pavement more than a 12,000 pound loading.

Q. Do you consider a load of 16,000 pounds on the rear axle safe?

[fol. 252] A. From the highway standpoint?

Q. Yes.

A. It is apt to do it some damage. It will stand it maybe for a good long while, but it is bound to break it down a little earlier than if it had a lighter load.

Judge Parker: He is making the distinction between what is safe for bridges and what is safe for roads. He stated in answer to the question I asked that he thought that 18,000 pounds axle load was not too great for the better paved roads, so far as the roads themselves were concerned. That is what I understand his testimony to be. He has gone a great deal further, but he said as far as the better roads are concerned an 18,000 pound weight per axle would not be excessive, and he said all of those roads have bridges on which the weight of 10 tons is the maximum and beyond which it is not safe. I don't know that he has changed that. He said a great deal about the different type of roads, but I understand that to be the purport of his testimony now.

By Mr. Funkhouser:

Q. With this axle load which you say of 12,000 to 13,000 pounds—that is what you think would be safe for the South Carolina situation?

A. Yes, for the different roads.

Judge Parker: Here is what I am trying to clear up. You are asking questions for one situation in South Carolina and he is answering for another. You are asking as to the South Carolina situation not to include bridges, and he is answering to include bridges.

Mr. Funkhouser:

Q. Is this 16,000 pounds axle safe for bridges?

A. A good many of them it is not.

Q. How about on Route 17?

A. On Route 17 we have a number of bridges below Charleston there that would probably not be safe for a loading of that kind.

Q. What would those bridges below Charleston be safe for?

A. I would say 10 ton loading.

Q. Per axle?

A. No, sir, gross load.

[fol. 253] Q. How much per axle?

A. I consider bridges as having total load on them.

Q. I ask you per axle?

Judge Parker: I think he has answered that clearly. I think that answer gives the axle load as the test for pavement strength, but the total load of the truck is the test for bridge strength.

By Mr. Funkhouser:

Q. Isn't it true, Mr. Williamson, that the formula W equals C times L plus 40 makes the test of the load going over the bridge the length of the vehicle?

A. Yes, that takes into account the length of the vehicle.

Q. Are any of those bridges long enough to have more than two trucks on them at the same time?

A. Yes, we have some.

Q. Are any of those bridges wide enough to have two trucks to pass on them at the same time?

A. All of them are.

Q. Isn't it a fact that those bridges have been strengthened and built up to the necessity of the traffic upon them?

A. I believe it says the load for the traffic that is using them.

Judge Parker: I want to ask you a question when you get through. I want to ask about the width of the truck.

As I understand, this is the only state in the Union that limits trucks to 90 inches. Why shouldn't 96 inches for trucks be safe on those arteries?

A. Well, in some cases it probably will, but again we have over a hundred miles of paving which is only 16 feet wide. Twice 8 feet is 16.

Q. Are they on the arteries of interstate commerce?

A. Yes, we have some that go from here to Newberry not more than 16 feet after you get out of Columbia.

Q. 96 inches take up fully half of it?

A. Yes, sir, fully half and when two of those meet, there isn't much room between them. As a matter of fact, my experience in meeting those 8 foot buses on the road of that kind, I usually hit the dirt. That is the safe thing [fol. 254] to do. I take my chances on the dirt rather than on the bus.

Judge Glenn: How wide are the Greyhound Buses, do you know?

A. They are 8 feet wide. They are 96 inches.

Q. They are going to run here?

A. Yes, sir, they are running here now. When I meet one on the 16 foot pavement, I hit the shoulder. I always do that with the automobiles too.

Judge Parker: And ordinarily you don't feel so good when you meet one of them?

A. I don't repeat the Sunday school lesson, anyway.

Redirect examination.

By Mr. Griffith:

Q. As to the cost of maintenance, does that amount to anything?

A. Oh, yes, it is a considerable item. We are spending a million and three-quarter dollars a year now—about a million and three-quarters—for maintenance of bridges and roads.

Q. In the State Highway System?

A. Yes, sir.

Q. Does the Federal Government contribute any part of that?

A. No, sir.

Q. Going back to the width—you said you ran on the shoulder when you meet the wide vehicles. Does traveling on the shoulder, the edges of the road, add to the maintenance?

A. Yes, it is a good bit more probably, it cuts the shoulder up.

Q. You have to keep the shoulders even?

A. If traffic stays off the shoulders normally, we keep grass growing up to the pavement and there is no wearing down.

Q. Where is the weakest part of the road?

A. The weakest part of the road generally is at the edge.

Q. You want to keep the traffic away from there?

A. We have designed pavement to correct that by making the edges thicker than the center.

Q. In your opinion and in the opinion of the State Highway Department since you have been connected with it are the heavy motor trucks bearing their proportionate part of their cost and maintenance?

[fol. 255] Judge Parker: How is that relevant?

Mr. Griffith: It is the design of the State law that all revenue derived shall be placed on those roads.

Judge Parker: It isn't a question of taxes, it is a question of size and weight. How does this question of the proportionate part of the expense have anything to do with that?

Mr. Griffith: We want to complete a State highway system in this state.

Judge Parker: We all agree it hasn't anything to do with the question here.

Judge Parker: Is that all of the testimony you wanted to put in out of order, Mr. Griffith?

Mr. Griffith: Yes, thank you, Your Honor.

Judge Parker: Let the plaintiff put up another witness.

[fol. 256] Mr. J. Ross Hanahan, a witness for the plaintiffs, after having been duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live in Charleston, South Carolina, and am President of the Planters Fertilizer Company, manufacturers of com-

mercial fertilizers. The gross output of my business per year is around 50,000 tons of commercial fertilizers, worth a million one hundred thousand dollars. We ship by truck into North Carolina, South Carolina and Georgia. The nature of our business has changed very much in the last few years. The State of South Carolina uses around 650,000 to 700,000 tons of commercial fertilizers, a large part of which goes out of the State and is manufactured in the State. The South Carolina manufacturers have to compete with outside manufacturers. The percentage of our principal plant in the last three years from nothing has increased to around 31½% to move by truck in the whole State of South Carolina; 50% is now moving by truck out of the interior plant, and out of the Anderson plant 100% is moved by truck. If the law in South Carolina were enforced it would almost stop the trucking business, the cargo load 20,000 pounds is such that you could not convey the material for a very great distance. Conditions today are different from what they were a few years ago. The farmers use 650,000 tons of fertilizer in South Carolina and he wants it at his cotton row and with the advent of the truck he is getting it at his cotton row. To go back fifteen years, we commenced to ship fertilizer in December, delivered it at the station, the farmer hauled it from the station in his truck to his barn and in the spring carried it to his farm. To day, the fertilizer business in the spring is finished in about 45 days. It comes directly from the manufacturer's plant by truck, a great part of it, directly to the farmer's cotton row or tobacco row. The farmers want quick deliveries and want it when he is ready to plant. That is the custom in the fertilizer business today. We could not make these deliveries by rail. The change in the manner of deliveries has changed the price of fertilizers. The expense of delivering to the farm is all con-
[fol. 257] tained in the price. If the gross weight of 20,000 pounds were enforced or the size of the truck cut down it would increase the price to the buyer and the service of delivering the fertilizer direct to the farm would be denied the purchaser. The things about which I have testified would apply to other merchants and fertilizer companies, to all the fertilizer companies doing business in South Carolina. The mileage for delivery of commercial fertilizer is gradually being extended from 30 miles originally around

the small plant to where they are being delivered in trucks as high as 250 miles, but ordinarily 150 miles and as the tonnage grows the extent of delivery will increase. My company is a plaintiff in this case and if the relief prayed for is denied we will suffer a loss of at least $3,000.00, and the same would be true as to the Merchants Fertilizer Company.

(No cross-examination.)

Mr. G. A. Howell, a witness for the plaintiff, after having been duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live at Rock Hill, South Carolina, and am employed by the Rock Hill Printing and Finishing Company, engaged in the business of finishing cotton piece goods. This Company does a large volume of business per year, it will average anywhere from fifteen to twenty million yards a month, amounting to about $35,000,000.00. This Company ships by truck, to a large extent, the trucks being loaded over 20,000 pounds in ordinary shipping interstate commerce. If the running of these trucks is stopped or the size of the trucks cut down it will increase the cost of our merchandise to the customer, as well as in the handling of the supplies, we would not be in position to compete with out of state competitors, allowing them to deliver to the customers at less money and with better service than we would be able to give. In our line of business wages have increased all over the country. We have about 1600 em- [fol. 258] ployees. If the law is enforced it would throw some of the business we are now getting to our out of state competitors and would cut down the necessity for the number of employees we now have.

(No cross-examination.)

J. A. SUTTON, a witness for the plaintiffs, after being first duly sworn, testified:

Direct examination.

By Mr. Beall:

I live in Charlotte, North Carolina, and am Secretary and Treasurer of the Horton Motor Lines, Incorporated. When this Company was organized in 1930 they had between 25 and 30 units of equipment, and at the present time operate approximately 270. We have through routes and joint rates with numerous other motor carriers. With our own equipment we operate in North Carolina, Virginia, District of Columbia, Maryland, Pennsylvania, New Jersey, Delaware and New York, but taking in the territory covered by our connections we serve the greater part of the eastern section of the United States. We withhold solicitations of freight on the lower classifications for delivery to our connection lines south of Charlotte, North Carolina, because the restrictions placed on operators in the State of South Carolina, if we were to actively solicit people for the lower classifications of freight, which we can carry ourselves north of South Carolina profitably, we feel that we might flood them to the point, with that classification of freight, that the proportion of the rate would be so low compared with the exceedingly high rate with some other units, that we do not solicit the lower classes of freight for trucking into and through South Carolina, and we do not have connections to complete that movement. We do not feel in cases of that kind that we can, when we make these joint rates, take into consideration with connection lines that they are bearing that cost and make arrangements with them for a proportionately higher charge out of Charlotte if their operating costs are higher than those going north. We feel that we would be running afoul of the provisions of the Revenue Act [fol. 259] of 1935, which provides against discrimination, and such rates would be a discrimination in that movement South of Charlotte at a higher rate than for the same movement going north of Charlotte and we feel that if we propose such a rate it would be illegal. It is approximately the same mileage from Atlanta to Charlotte as from Charlotte to Richmond. If the provisions of the South Carolina law were enforced, our southern connections south from Charlotte

would have to increase the rate approximately 75% or more. If we have a rate where one shipper pays 75% higher rate going the same distance over a similar route and the same kind of territory than he would pay going in another direction, it is my understanding we would run afoul of a section of the Federal Law. I think as a practical proposition it is more important to motor carriers to comply with the Federal law and at the same time as a matter of fairness and without discrimination in rates, and also a compliance with the State law. If the South Carolina law were enforced on our connections it would cost us in damages in excess of $3000.00. Our Company is a plaintiff in this case. We operated in and through South Carolina from Charlotte to Atlanta until March, 1932. I think there is a direct relationship between the size and weights to the matter of service which motor carriers are required under the Motor Carriers Act to render. It has a direct connection to safety and reasonable rates. What I have said in connection with the rate situation, the operating cost, etc., affecting rates applies to the other operators who are plaintiffs in this case and to all motor carriers where it places a proportionately higher rate and where it means a higher cost.

(No cross-examination.)

M. M. STUART, a witness for the plaintiffs, was recalled, and having been heretofore duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

* * * * * * * *

[fol. 260] Q. Do you have a financial statement of your company?

A. Yes, Barnwell Brothers, Incorporated.

Q. For what year?

A. 1936, October 31st.

Q. What conclusions does it show they rated it?

Judge Parker: For what purpose is this?

Mr. Funkhouser: Showing the development of the industry, the stability of it.

Judge Parker: It doesn't make any difference if it is solvent, insolvent, prosperous or what not. If they are entitled to maintain this commerce, they are entitled to maintain it.

Mr. Funkhouser: The allegation of the Bill is that they have invested large sums of money which would be jeopardized and damaged.

Judge Northcott: Didn't you prove that by him on the stand. You went all over that.

Mr. Funkhouser: He didn't touch on that.

Judge Northcott: Didn't he develop how many trucks [fol. 261] he operated in his business?

Mr. Funkhouser: I wasn't going into that.

Judge Glenn: Mr. Stuart, the situation is this. Your company has increased and is rendering good service and expects to do so right on?

A. Yes, sir.

Judge Glenn: You have reason to believe that you will render adequate service to the public in the years to come?

A. Yes, sir.

Judge Glenn: And you have some money?

A. Yes, sir.

Judge Glenn: I think that is competent as far as it goes. Is that true as to the other companies in this case?

A. As far as I know it is.

(No cross-examination.)

Martin Johnson, a witness for the plaintiffs, after being first duly sworn, testified:

Direct examination.

By Mr. Funkhouser:

I live at Charlotte, North Carolina, and am connected with the National Convoy & Trucking Company, one of the plaintiffs in this case. We operate in interstate commerce 65 trucks. If the relief prayed for in this bill is denied we will suffer a loss of $3000.00. I am familiar with the highway running from Cornelia, Georgia, on through toward Asheville only by observation on the map. I have never traveled it. The testimony given by Mr. Sutton would apply equally to our Company.

(No cross-examination.)

Mr. Funkhouser: I am through with all the witnesses on the subjects we have covered. I have one or two more, that is all. I have an accountant who has made a study of the [fol. 262] records of the Highway Department. These records will show the contribution of these trucks and automobiles to the various uses of the highway.

Judge Parker: We ruled that out on the other side.

Mr. Funkhouser: I know you did. I want to make the proffer of it. It will show that 60% of the gross income comes from the automobiles and trucks of the State.

Judge Parker: The plaintiff proffers proof by the witness, Mr. H. E. Gooding, a certified public accountant. That he has examined the records of the State Highway Commission and that with Federal aid, 60% of the gross income of the State of South Carolina comes from trucks and automobiles.

Mr. Blease: You mean for road purposes?

Mr. Funkhouser: No, sir, I mean gross income of the State. We might add to that our proffer to prove the income from trucks, automobiles and railroads and make the comparison of the income from other sources in the State of South Carolina. We proffer to prove that the amount paid by trucks alone and gasoline and license fees is expended for the maintenance of the highways in South Carolina.

Judge Parker: None of this testimony is relevant. It is incompetent, irrelevant, immaterial and throws no light on the issues involved in this case.

Exception noted by plaintiff.

Judge Parker: The Court excludes it, having heretofore excluded similar testimony on the part of the defendant.

Mr. Griffith: I offer to prove that they are not paying their share.

Judge Parker: When you get to your proof, you can offer what you want.

T. J. Burke, a witness for the plaintiff, having been heretofore duly sworn, was recalled and testified:

[fol. 263] Direct examination.

By Mr. Funkhouser:

Mr. Funkhouser: Judge Glenn asked for information with regard to actual tonnage in Charleston.

Judge Glenn: All right.

A. In 1934 for exterior movement from Charleston, 36,778 tons and in 1935 75,780 tons.

Judge Glenn: And moved by rail to the port and moved by ship beyond port in exterior trade.

DR. HARRY TUCKER, a witness for the plaintiffs, having heretofore been duly sworn, was recalled and testified as follows:

Direct examination.

By Mr. Coleman:

Q. Some question has been raised here that even though 16,000 or 18,000 pound axle weights are needed to break highways, the thing that is needed to break bridges is gross weight of the truck. Have the American Association of State Highway Officials and the Bureau of Roads an approved formula as to that?

A. Yes, they have.

Q. Will you tell the Court what it is and explain about that—whether it is gross weight that breaks bridges?

A. The gross weight for designing bridges is W equals C times L plus 40, where the C is a constant depending on the weight of the vehicle using the roads. L is the length of the vehicle, on combination vehicles from the front axle to the extreme rear axle and 40 is a constant. That is the formula that is recommended in designing highways. We have three classifications. One is known as the H10 classification, which means a ten ton truck. We have the H-15 classification. That means a 15 ton truck. We have an H-20 classification. That means a 20 ton truck. The nature of the constant in this formula varies depending on the weights and class of vehicles using the highway. For [fol. 264] the smallest, which is H-10 ton truck, the constant is 670; for the H-15 trucks, the constant is 1010, I believe, and for the H-20 trucks, the constant is 1340. Now, as far as my information goes all of the bridges in the southern section of the United States have been designed for the H-10 loading. That means a ten ton truck. Now that does not mean that you put a single vehicle on the bridge. In designing bridges you must design a bridge for

the most extreme conditions we can get on it. The most extreme condition is—for a two-way bridge or a double track bridge, the most extreme conditions are two rows of trucks following each other. In the case of the H-10 loading that would be two rows of trucks, each truck carrying 10 tons, or 20,000 pounds. The general spacing for those trucks is 14 feet, axle to axle, that is, the distance from the rear axle of the end truck to the front axle of the other truck is 14 feet. In other words, you can get the H-10 load—it is perfectly safe to put axles on the bridge in succession on which the front axle carries 8,000 pounds and the rear axle carries approximately 16,000 pounds. That is the explan-tion of how we design highway bridges and how highway bridges have been designed in this section of the United States ever since I have known anything about it.

Q. To make it clear to me and to laymen who don't understand certain terms, isn't it true that the important thing in carr-ing loads on bridges is to prevent the whole load from being on one span like that (indicating) but to distribute it on one or more spans?

A. The main thing is to so load your bridge that the members will not be stressed to the maximum amount and that will obtain when you have crossed it.

Q. Isn't it true that you want to distribute the weight over two or more spans.

A. Yes, sir.

Judge Glenn: The constant is the unit you have to support in the length covering the bridge? Gross weight is [fol. 265] not the test for the bridge?

A. No, sir.

Q. That is your constant of 670?

A. Yes, sir.

By Mr. Coleman:

Q. Isn't the approved constant 750?

A. I don't know what the approved constant is.

Q. Let's take the smallest constant of 670 and a 30 foot tractor-semi-trailer—won't the result of that formula be 670 multiplied by 30 plus 40, or 42,000 pounds?

A. Approximately so.

Q. So that the smallest constant that you would have in

the classifications about which you spoke, or maximum weight, is 42,000 pounds?

A. On tractor-trailers, yes.

Q. And that 30 feet will be distributed ordinarily on bridges on one or two spans?

A. Do you mean spans on the truck?

Q. The bridges are supported by beams, as I illustrated here?

A. We use the word "span" in a little different sense.

Q. I don't know, but the bridge is supported at some one point?

A. Yes.

Q. And the load is distributed over more than one point?

A. So that the load will not be on one panel of the bridge.

Q. So the load does not break the bridges?

A. Absolutely not.

Judge Parker: Let me see if I understand you. You say these bridges that have been referred to as weak bridges, are so constructed that the entire weight of one of these large trucks cannot fall within a span? I am using the "span" in the sense in which counsel used it, between points where the weight is divided.

A. It is difficult for them to fall within those points, in the ordinary construction.

Judge Parker: I am not speaking about what is ordi-
[fol. 266] narily difficult. We are considering a practical proposition. One witness has testified particularly that the Pee Dee River Bridge was unsafe for a greater weight than a ten ton truck. As I understand, counsel is attempting to prove that it is the weight on the axles and not the weight of the truck that is determining. Now, I want to know whether or not you are prepared to testify that these bridges are so constructed, that he has referred to,—that these bridges are so constructed that the entire weight of the truck will not fall upon any particular part of the bridge?

A. I can't answer that. But in further explanation I will say that the gross load of the vehicle, or 20,000 coming on the bridge between supports——

Judge Parker: You call that a pound?

A. Yes, sir, I call that a pound on the bridge. That load may produce a greater stress than if you had two vehicles

each of 20,000 pounds following each other on the same place. It is a question of where you put that particular load. It is rather technical. I can't go into it much further. The point I am trying to make in my testimony is this: When you say a bridge is designed for a ten ton vehicle, that means the bridge is designed for the vehicles following after, each of ten tons, because that is the most loading you can get on a bridge. Not only that, but you can put trains of them, each behind the other.

Judge Parker: Up in Western North Carolina I have seen a big truck down in the creek; the bridge had gone with it. It struck me that it was too heavy for the bridge.

A. That is probably so for that particular short span right in there. The panel length may be so proportioned to the length of that truck that the greatest load came not when you had that bridge fully loaded, but when you had that one vehicle right there on that particular point.

Judge Glenn: You have studied the highway business [fol. 267] generally. Suppose you had trucks in threes upon Highway No. 1, a highway that was designed to carry heavy traffic, would it be advisable, under your previous testimony here, to so control the traffic of these very heavy trucks over bridges so as to avoid the putting of five or six of them on at one time, without seriously impeding the interstate commerce?

A. I don't believe that would be practical, Your Honor, because there would be certain cases in which you couldn't control it. If you got those on there the bridge might fall. If I were highway engineer I would prefer to go back and reinforce the bridge to carry the extreme case.

Judge Glenn: I mean to take care of an emergency.

A. I would put an officer there and wouldn't let but one or two or three trucks, as the case might be, proceed over the bridge at the same time. That is done many times.

Q. Are you prepared to say from your knowledge of bridge design, and your knowledge of the bridges in this particular part of the country generally, what the average length of the panel is on a bridge?

A. No, it is impossible, they vary so widely.

Q. Are you familiar with the bridge which Mr. Williamson spoke of this morning?

A. You mean on route No. 1?

Q. Yes.

A. No, sir; I am not familiar with that bridge. It is one section of the state highway system I didn't ride over.

Q. Well, if you were told that heavy traffic has been going over that bridge for several years, trucks and buses weighing over 20,000 pounds up to 30,000 pounds, would you expect that bridge if it were weak to have given way within a space of three or four years?

A. That is hard to tell, because bridges that are weak have some way of continuing in use even though you could prove they should fall down. I would investigate bridges, determine what load they would carry, and if they wouldn't carry certain loads, I would post a notice to that effect.

[fol. 268] Q. Would undue stress on a bridge like that be inclined to appear on the bridge?

A. I believe that is a wooden bridge, isn't it?

Judge Parker: Yes.

A. You can't figure stress on a wooden bridge like that, I don't believe, very well.

Mr. Funkhouser: I would like to have it admitted that the State law has not been enforced since its passage in 1933. I don't suppose that will be denied, will it?

Mr. Lyles: No, sir.

Mr. Blease: You have enjoined it all the time.

Mr. Funkhouser: I beg pardon. None of the plaintiffs in this case have.

Judge Parker: It is admitted that the Act has not been enforced because its enforcement has been enjoined by various parties.

Mr. Blease: Yes, sir; we will agree to that.

Mr. Funkhouser: Will it be admitted the inter-state roads, three or four—I will name them—have been in use for the period by these heavy trucks, since 1930 without any restriction?

Judge Parker: Better name the roads.

Mr. Funkhouser: Road 17; 15-A; 1; 29; 25.

Mr. Griffith: We will admit that they have been open to use to all kinds of trucks and vehicles, but the extent it is impossible to even prove, I suppose. They have been open for traffic.

Judge Parker: They have been open for traffic and have been used by trucks and other vehicles.

At this point, Mr. Funkhouser offered in evidence five affidavits.

Mr. Griffith: We don't object to the form of the evidence. [fol. 269] We do object to its relevancy, and upon the further ground it is cumulative and is unduly burdening the record.

Mr. Funkhouser: On the question of relevancy, they have admitted similar testimony without objection during the trial.

Judge Parker: He objected to this line of testimony, and I told him he need not keep it up, because in a hearing in equity the Court was assumed to have considered only relevant evidence. Let it appear plaintiffs offer the affidavits of the following: E. F. Skidmore, P. W. Lowry, Russell Borjes, Ashmead Pringle, Jr., Frank Brumby Wellons.

Judge Parker: The defendants do not object to the form of this testimony, and do not object that the testimony is offered in the form of affidavits, and not by the production of witnesses in open court. Defendants do object on the ground the testimony is irrelevant and cumulative. Objection overruled.

Defendants except. The affidavits are admitted.

[fol. 270] AFFIDAVIT OF E. F. SKIDMORE, SALES MANAGER, CHARLESTON DIVISION INDIANA FLOUR COMPANY, INC., A SUBSIDIARY OF GENERAL FOODS, INC.

Beginning three or four year ago a large movement of flour from the West Coast to the Atlantic Seaboard has been caused by a surplus of wheat west of the Rocky Mountains. This surplus exists because the natural foreign markets for this wheat have been destroyed by disparity between the price of American wheat and that of foreign countries.

The Indiana Flour Company in October of this year constructed a plant at Charleston, S. C. This flour moves by boat, in jute bags, in bulk, through the Panama Canal to the Charleston plant. There it is processed, self-rising ingredients added, and re-placed into family size packages. From this plant the re-packed flour is distributed to inland

jobbers and handlers of flour throughout the States of South Carolina, North Carolina, and Georgia.

Loaded on a truck flour makes a compact load. The average pay-load of these trucks is around 20,000 pounds, so that the gross weight approximates 30,000 pounds or over. One method of this transportation is to drop partial truck-load deliveries of this flour at various points on the route from Charleston at various South Carolina points and make final delivery of the load in Georgia or North Carolina, as the case may be.

Movement of this commodity by motor truck is required as a matter of economy and service, because, in the first place, speed of delivery is essential not only to the demands of the jobber, but to prevent deterioration of the product; in the second place, movement by motor-truck does away with the necessity for warehousing; and in the third place, movement by motor truck is cheaper to practically all of the communities which it serves. In the absence of Motor transportation those communities would be dependent upon flour shipped by rail in less than carload lots.

[fol. 271] While it cannot be said definitely what effect the enforcement of this law will have upon the policies of the Indiana Flour Company in regard to continuing operations in South Carolina, it can be surely said that it will substantially decrease the volume of business, for the reason that if the Charleston Division of Indiana Flour Company increases the price of this product because of increased transportation costs, the present North Carolina and Georgia business will be thrown to competitors and move through the ports of Wilmington and Savannah respectively.

The effect of the enforcement of this law will be that the price of flour to the citizens of South Carolina will be substantially increased. This increase can be approximated as 65 cents per barrel, or an increase of 15%.

The price of flour in South Carolina, as in North Carolina, Georgia and other states on the Atlantic Seaboard and Gulf Coast, is at a lower level than even those states lying near or within the Wheat Belt, for the reason that transportation by water from the West Coast through the Panama Canal to the Atlantic Seaboard and distribution from the Seaboard by truck to the point of use is cheaper than the rail rates from the Wheat Belt in the Middle West to those points of use.

Indiana Flour Company is but one of five major companies who are in the same business and have plants at Charleston, S. C. The other four companies are: Southern Gold Medal Company, Dixie Portland Flour Mills, Ballard & Ballard, Fisher Flour Mills Company.

This commodity is one of the major commodities moving into the Port of Charleston and a large portion of it moves in interstate commerce. The enforcement of this law will sharply curtail this movement and divert it to the ports of Wilmington, Savannah and other ports along the Atlantic Seaboard.

(Signed) E. F. Skidmore.

(Jurat omitted.)

[fol. 272] AFFIDAVIT OF P. W. LOWRY, COLUMBIA, SOUTH CAROLINA

For the last thirteen years I have been associated with various saw-mill operations in South Carolina as Traffic Manager, and am a Licensed Practitioner by the Interstate Commerce Commission.

The lumber industry in South Carolina has assumed its present major importance within the last fifteen years, particularly with reference to hardwood lumber.

Since the depletion of our timber land adjacent to the railroad lines, it has been necessary to move lumber by truck to the rail termini or to the mills, and in most instances it is found advantageous to carry it to the mill directly. Moreover, some of the mills here represented are from 1½ to 12 miles from any rail line, and are solely dependent upon truck transportation. This includes our largest as well as our smallest operations.

In the last few years, since the coming of good roads and the development of motor transportation, a large interstate movement of mill lumber takes place in South Carolina from these mills. This movement is north into North Carolina, Virgina and Maryland.

A survey of 23 saw-mills in the State shows an annual movement by truck of approximately 103,000,000 feet of lumber and 130,000,000 feet of logs. Twenty-one of these mills show an average of 17,854 pounds of lumber per load. This includes both intrastate and interstate transportation.

It is absolutely necessary for profitable transportation of the commodity in interstate commerce that the gross weight exceed 20,000 pounds.

New competitive conditions have been created in the lumber industry. The consuming public demands that shipments of lumber be sent direct to the point of use. Railroads are of course unable to give this service. In many instances the mills are located some distance from the railroad, and in most instances the point of use is located some [fol. 273] distance from the railroad.

In certain instances rates by truck are higher than by rail. Nevertheless, transportation by truck is demanded because of service rendered by truck transportation, which cannot be rendered by rail. For example, for delivery to point of use, and with regard to the Port of Charleston, certainty of delivery according to shipping schedules, and time of delivery.

Considerable quantities of lumber heretofore mentioned moving in interstate commerce moves north to the furniture factories of North Carolina and Southern Virginia. Should this law be enforced this interstate movement by truck will practically cease and this transportation will go back to the rails, at a serious loss of profit to a South Carolina industry and serious curtailment of service both in convenience and time to the consuming public.

(Signed) P. W. Lowry.

(Jurat omitted.)

AFFIDAVIT OF MR. RUSSELL BORJES, TRAFFIC MANAGER OF SOUTHERN GROCERY STORES, INC., ATLANTA, GEORGIA

My name is Russell Borjes. I live in Atlanta, Georgia, and am employed by Southern Grocery Stores, Inc., 682 Whitehall Street, Atlanta, Georgia, as Traffic Manager. We operate a chain of grocery stores with headquarters in Atlanta, Georgia. The majority of the capital invested in our Company is of citizens of Georgia. Our Company operates 380 stores, located in Georgia, Florida, Alabama and South Carolina. Our main warehouse is in Atlanta. We have a branch warehouse at Greenville, S. C. From our warehouse at Greenville, S. C., we deliver to our twelve stores in Augusta, Ga. Our Company has attempted to buy equipment to comply with the South Carolina weight

laws. The equipment we bought has decreased the size of the load that would be carried if it were not for the South Carolina weight law and has increased the cost of distribution of our products. The present average cost of distribution is 27½c per hundred pounds. If we could carry a [fol. 274] payload of 10 tons, to 20,000 pounds the average cost of distribution would be 16½c per hundred pounds, or an average saving of 11c per hundred pounds, which saving would be passed on to the public. Our Company operates upon the basis of making a small profit, we attempt to net 2% of our sales. This necessitates each factor of expense being kept to the minimum. As our Company is now obeying the South Carolina law, we are not permitted to fill our trucks to capacity, which is a factor in our present transportation costs.

(Signed) Russell Borjes.

(Jurat omitted.)

AFFIDAVIT OF ASHMEAD PRINGLE, JR., CHARLESTON, SOUTH CAROLINA, VICE PRESIDENT OF MERCHANTS FERTILIZER COMPANY, CHARLESTON, S. C.

The company operates a complete fertilizer plant and sells complete fertilizer and fertilizer materials. We have been in the fertilizer business since 1918 and under the present corporate form since 1931. I have looked over the records of our shipments made during the 1935-36 season, and I found that about 90% of out total motor transported tonnage was moved in trucks carrying a pay load of 12,000 pounds or more and 7% more of less, of the motor transported fertilizer tonnage moved in interstate commerce.

During this season we move about 12,300 tons by truck to areas in excess of 50 miles from our Charleston plant and furthermore, we shipped approximately 6,500 tons of fertilizer to the market gardening areas which lie within a radius of 50 miles of Charleston.

Inasmuch as fertilizer is a commodity which has very low value in proportion to its weight any regulation which decreases the pay load of fertilizer truck will automatically increase the cost of fertilizer transportation and will, therefore, increase the cost of fertilizer to the consumer.

(Signed) Ashmead Pringle, Jr.

(Jurat omitted.)

[fol. 275] AFFIDAVIT OF MR. FRANK BRUMBY WELLONS, SALES MANAGER OF THE BRUMBY CHAIR COMPANY, MARIETTA, GEORGIA

My name is Frank Brumby Wellons. I live in Marietta, Georgia, and am employed as Sales Manager of the Brumby Chair Company, Marietta, Ga., manufacturers of common chairs of all types. We sell these chairs principally in the southeast. We sell them in South Carolina. I am familiar with the limitations of the South Carolina law as to width and length. We ship 75% of our product by truck. We can ship by truck at less cost than by rail. The saving in transportation cost permits us to sell our product to the public at a competitive price, which saving is passed on to the public. It is necessary for us to use trucks of minimum width of 8 feet and if this width is decreased to 7½ feet as result of the enforcement of the width law in South Carolina it would decrease the size of our loads approximately 25%, which would automatically increase the transportation cost by that figure and this increased cost would have to be passed on to the public. Considering the competition between our Company and our North Carolina competitors, it would practically force us out of business in South Carolina for the reason that if we were compelled to add 25% to the delivery cost of our merchandise in South Carolina we would not be competitive. The same would be true as to all of our customers in South Carolina and points north. We could ship by rail except for the fact that the cost of delivering the goods by rail would run from five to twelve percent higher than our present average costs to deliver by truck. For instance, the L. C. L. freight rate from Marietta, Georgia, to Columbia, South Carolina, is approximately $1.00 per hundred pounds, and on an item of our manufacture costing $12.00 per dozen and weighing 100 lbs. per dozen, the cost would be $1.00 per dozen for delivery by freight, whereas, our actual cost records covering deliveries of the same item by truck to Columbia, South [fol. 276] Carolina, is less than 50¢ per dozen. In this instance it can be readily seen that the rail cost would be approximately double our truck cost. This would affect us materially in that the delivery cost of our product would be so much higher than the cost of similar merchandise sold by our competitors who are better geographically located. We would lose our markets due to the fact that

since 1929 we have established a definite sales policy in the State of South Carolina wherein we have continually had a delivered price for all items of our manufacture to store doors in the state, and to be compelled to ship by rail would force us into a field wherein we would be non-competitive, and we would lose our trade in the state and points north. It would decrease the amount of the flow of our product in interstate commerce. If the law were enforced we could not ship by smaller trucks for the simple reason that the operation of smaller trucks with the distance to be covered would involve excessive expense, and again it would make us non-competitive in South Carolina and points North. We couldn't go around South Carolina to points north for the reason that the only avenue into North Carolina from Georgia, other than going through South Carolina, is by way of Cornelia, Georgia, and Asheville, North Carolina. This is a narrow road, full of short curves and mountain climbs which make it a very hazardous highway for trucks of any size to travel. Since the South Carolina law was passed we have attempted to use that road and our experience in trying to deliver over this road resulted in our truck driver asking that he never be routed over this road again due to the fact that in more than one instance the curves were so excessive that when his large truck was making the curves he completely blocked the road for traffic coming in either direction. Our investigation of the driver's contention was verified when his truck got off the road in making this short curve, and he was compelled to block the highway for three or four hours until assistance could be had to get his truck off the road. In shipping over the route from Cornelia to Asheville the time in which the shipment is made is materially delayed and [fol. 277] this increases the cost of the shipment if the distance is greater. We could not remain in business and make shipments by truck over that road. The chair industry suffered during the depression, as did most all manufacturing industries, unless it might be stated that the chair industry suffered more in comparison, and this is brought out by the number of complete failures in our industry which took place during the depression. Those of our industry who weathered the depression did not operate full time. Some of them had long shut-downs and the majority of them ran from two to four days a week. Our Company weathered the depression and we had no shut-downs during the depres-

sion for lack of business. Our Company did not lose many days in operation during the depression due to lack of business. I attribute this to the fact that we established quick service and made it possible for the furniture dealers to buy in small quantities without being compelled to pay excessive freight charges. In other words, I attribute this to the fact that we could deliver by truck economically and in an efficient manner. When we established our truck service we did it primarily to enable the dealers to buy in small quantities and to avoid the expense of having to pay a minimum freight charge on shipments by rail, and by this I mean that when the depression started and dealers were compelled to retrench, they refrained from buying from such sources where they would be compelled to pay freight on 100 pounds shipment whereas the shipment might actually weigh only 20 pounds. In our truck service the dealer was compelled to pay the ratio of freight only on the actual weight of the shipment. Over and above that, we were eliminating the expense of hauling merchandise from the freight depot to the stores, and we eliminated completely the necessity of the dealer having to file claims against the rail carriers for damage to merchandise in transit, and the fact that the commodity is of a fragile nature it is nothing uncommon for freight claims to be filed on eight out of ten shipments made by rail. The damage occurring to shipments by truck as compared with shipments by rail is very trivial, and this is due primarily to the [fol. 278] fact that shipments by our trucks are handled only in loading and unloading. In other words, we do not have to break bulk cars such as is done in L. C. L. freight shipments at terminal points. Likewise our experience in handling our commodity for loading and unloading has been such as to teach us how to handle the goods with the least possible element of damage, and over and above this, in the event damage should occur to a shipment in one of our trucks, the merchandise is not delivered to the customer, but is brought back to our factory by the truck for repairs. Whereas, if railroad damage occurs, there is nothing to do but to refuse the goods and file a claim with the carrier. As an illustration and a comparison of two shipments going from our factory to Sumter, South Carolina. A shipment by our truck is loaded at our factory and is not touched again until it is taken off the truck at the dealer's store door. Whereas, the same shipment by rail freight

calls for our putting the shipment in our local freight depot at Marietta, Georgia, where it is loaded into a box car with other commodities and is brought to the distributing terminal in Atlanta. At that point it is unloaded and reloaded into another car with various other commodities and is taken over another line to Columbia, South Carolina. At Columbia this car is broken and our shipment placed in still another car of mixed merchandise for shipment to Sumter, and at Sumter it is unloaded in a freight depot where the dealer sends his truck to pick up the shipment. It can be readily seen that in the number of handlings a shipment of fragile merchandise by reaching its destination by rail freight has unlimited possibilities for damage. The method of merchandising has changed materially and excessively as result of the development of motor transportation. In "boom" days prior to the depression, furniture dealers maintain warehouses where they stored excess stock, and in those days the dealers bought in sizeable quantities. At the beginning of the depression they naturally adopted a retrenchment program and did away with practically all warehouse space. From the beginning of the depression until now furniture dealers have refrained [fol. 279] from carrying practically any stock other than that what is now on their sales floors. This, of course, resulted in small purchases from the factories and in our case, where a dealer in Columbia, South Carolina, used to buy ten to twenty-five dozen units of a pattern and carried its excess stock in a warehouse, he has, during the depression, and continues to buy in smaller quantities of one to five dozen, and as soon as delivery is made this stock is put on his sales floor. This in itself has made it necessary for the manufacturer to speed up his delivery in order to keep the dealers supplied with merchandise. This change has resulted in benefit to the public because it has enabled the dealer to materially lower his operating cost and his general overhead, which, of course, has resulted in his being able to offer his merchandise to the buying public at a lower figure. Motor transportation has not only helped us develop our business, but it has likewise enabled us to stay in business at a fairly profitable figure throughout the depression. Our Company has approximately 400 employees. If the South Carolina width and length laws are enforced it is entirely possible that it would cause some unemployment in our Company in that we would lose a

sizeable percentage of the volume of business we are enjoying in South Carolina and states north, and if we were compelled to reduce our manufacture program sufficiently to offset the business we would lose, we would either have to reduce the size of our operating personnel or go west for sufficient business to absorb the volume we would lose in South Carolina and points North. In other words, the flow of our business would be diverted to the west instead of to the north.

(Signed.) Frank Brumby Wellons.

(Jurat omitted.)

Mr. Lyles: Defendant admits the allegations of paragraph of the Bill numbered Arabic One, reading as follows:

1. That the plaintiffs, Planter's Fertilizer & Phosphate Co., and Merchants Fertilizer Co., with their principal [fol. 280] offices and places of business in the City of Charleston, South Carolina; Poole Transportation, Inc., with its principal office and place of business at Greenville, South Carolina; and South Carolina Produce Association, with its principal office and place of business in the town of Meggetts, South Carolina; are each of them a corporation, organized and existing under and by virtue of the laws of the State of South Carolina.

That the plaintiffs, Barnwell Bros., Inc., with its principal office and place of business in the City of Burlington, North Carolina; Horton Motor Lines, Inc., National Convey & Trucking Company, and Carolina Transfer & Storage Co., with their principal offices and places of business in the City of Charlotte, North Carolina; and Akers & Hudson Motor Lines, Inc., with its principal office and place of business in the City of Gastonia, North Carolina; are each of them a corporation, organized and existing under and by virtue of the laws of the State of North Carolina.

That the plaintiffs, Sarah A. Geraty, John W. Geraty, and Charles W. Geraty, constitute partnership trading as William C. Geraty Co., and are each of them residents of Yonge's Island, in the County of Charleston, South Carolina, and are each of them citizens of the State of South Carolina.

That the plaintiff, Dewey D. Maner, is a sole trader, trading as Maner Transfer Co., and is a resident of the

City of Rome, Georgia, and is a citizen of the State of Georgia."

Mr. Lyles: Defendant admits the allegations of the paragraph of the Bill numbered Roman 2, Arabic 3, reading as follows:

II

"3. That the jurisdiction of this Court is invoked because the subject matter of the action involves the rights of the plaintiffs under the laws and the Constitution of the United States and the amount in controversy, as to each of the plaintiffs, exclusive of interest and costs, exceeds the sum and value of $3,000.00, as will hereafter appear; [fol. 281] and because the suit arises under a law of the United States regulating commerce."

Mr. Lyles: Defendant admits the following sub-paragraphs of paragraph numbered Arabic 10: one, two, three, four, five, six, and seven, which read as follows:

"10. That the plaintiff, Barnwell Bros., Inc., is now and was for a number of years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a common carrier; that it offers by its own facilities or through connecting agencies door to door delivery and daily direct service in the District of Columbia, Georgia, Maryland, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Virginia, and other States, and has branch offices and terminals at Atlanta, Ga., Baltimore, Md., Charlotte, N. C., Cumberland, Md., Greenville, S. C., Newark, N. J., New York City, Philadelphia, Pa., Shelby, N. C., and Washington, D. C.

That the plaintiff, Poole Transportation, Inc., is now, and was for a number of years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a common carrier, that it offers door to door delivery and daily direct service into, from, within, and across the State of South Carolina, from and to the States of Delaware, District of Columbia, Georgia, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Virginia, and other States, and has traffic a-ents at Greenville, S. C., Atlanta, Ga., Baltimore, Md., Burlington, N. C., Chester, Pa., Richmond, Va., Charlotte, N. C., Paterson, N. J., and Kings Mt., N. C.

That the plaintiff, Horton Motor Lines, Inc., is now, and was for a number of years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a common and contract carrier; that it offers door to door delivery and daily direct service in the District of Columbia, Maryland, New Jersey, New, York, North Carolina, Pennsylvania, Tennessee, Virginia, and other States, as a direct and connecting carrier [fol. 282] of South Carolina, and has warehouses and terminals at Baltimore, Md., Burlington, N. C., Charlotte, N. C., New York City, Philadelphia, Pa., Richmond, Va., Washington, D. C., Wilkes-Barre, Pa., Cumberland, Md., Hickory, N. C., Greensboro, N. C., and Pittsburgh, Pa.

That the plaintiff, National Convoy and Trucking Co., is now and was for a number of years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a common and contact carrier, offering door to door delivery and daily direct service in Georgia, North Carolina, South Carolina, Tennessee, Alabama, and other States, with traffic agents at Atlanta, Ga., Chattanooga, Tenn., Greenville, S. C., High Point, N. C., Knoxville, Tenn., Spartanburg, S. C., Winston-Salem, N. C., and Birmingham, Ala.

That the plaintiff, Carolina Transfer & Storage Company, is now, and was for many years prior to the passage of such Act of South Carolina, engaged in the transportation of property in interstate commerce as a contract and irregular common carrier; that it has specialized in the movement of household furniture and goods in interstate commerce, which is an indispensable service among all the several states of the United States, but that 35% of its total traffic moves into, from or across the State of South Carolina.

That the plaintiff, Dewey D. Maner, trading as Maner Transfer Company, of Rome, Georgia, is now, and was for many years prior to the passage of the Act of South Carolina, engaged in the transportation of property in interstate commerce as a common carrier; that he offers door to door delivery and daily direct service in Georgia, North Carolina, South Carolina, Tennessee, Alabama, and Virginia, Maryland, Pennsylvania, New York, and other states, with terminals at Baltimore, Md., Philadelphia, Pa., New York City, Chattanooga, Tenn., Atlanta, Ga., Birmingham, Ala., and Rome, Ga.

That the plaintiff, Akers & Hudson Motor Lines, Inc., is now and was for many years prior to the passage of such [fol. 283] Act of South Carolina, engaged in the transportation of property in interstate commerce as a contract carrier, that it offers door to door delivery and daily direct service in the States of Connecticut, Georgia, Maryland, Massachusetts, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, and other states, with traffic agents at Gastonia, N. C., Baltimore, Md., Newark, N. J., New York City, Reading, Pa., South River, N. J., Trenton, N. J., and Chester, Pa."

Mr. Lyles: We do not admit the other paragraphs concerning which counsel made inquiry.

Mr. Funkhouser: We are together on all except one, and that paragraph is as follows:

"II. That each of the plaintiffs hereto has made large investments of money, property and effort in the respective businesses in which they are engaged as alleged heretofore; that the necessary effect of the enforcement of the South Carolina Act will be to curtail the business of each of the plaintiffs, damage or destroy their investments in an amount, and reduce their lawful profits, in an amount, greatly in excess of One Thousand ($1,000.00) Dollars, for each month that they are thus unlawfully prevented from a reasonable use of the highways of the State of South Carolina."

Judge Parker: They say they do not admit that?

Mr. Funkhouser: No, sir.

Judge Glenn: You have introduced substantial testimony along that line, anyway.

Mr. Funkhouser: Yes, sir.

Judge Parker: Have you anything else?

Mr. Coleman: May it please the Court, we think possibly the Court got the impression from Mr. Williamson's testimony that when he said a bridge was designed to carry a ten ton load, that he meant that those bridges would not carry a semi-trailer tractor weighing from twenty to forty thousand pounds.

Judge Parker: What do you want to do?

Mr. Coleman: I want to prove what he meant was——

Judge Parker: Call your witness.

[fol. 284] HARRY TUCKER, a witness for the plaintiffs, having been previously sworn, was recalled and testified:

Direct examination.

By Mr. Coleman:

Q. You heard the testimony of Mr. Williamson when he said these——

Judge Parker: No, you can't prove what he meant. Prove anything else you want by this witness.

By Mr. Coleman:

Q. In engineering language, Professor Tucker, when a bridge is designed to carry a ten ton load, does that mean that only one ten ton load can be carried on that bridge?

A. No, sir.

Judge Glenn: We understand that—that it means as many ten ton trucks as can conceivably get on the bridge going both ways at the same time.

Q. Doesn't that mean that a tractor and a semi-trailer weighing 35,000 pounds could safely operate on that bridge?

A. Absolutely. The only difference would be instead of having two trucks following each other, you in effect connect by a draw-bar.

Q. So those are open to vehicles weighing 20,000 to 30,000 pounds?

A. Yes, sir, if they were designed for ten ton vehicles.

Judge Parker: Would that be sufficient—would a bridge designed to carry a ten ton truck support a line of tractors of that character going in both directions?

A. Absolutely, sir.

Judge Parker: What would be the weight of them? How long are these tractors?

A. The tractors are about—they range in different lengths, but around ten to twelve feet. The overall dimensions of the tractor and semi-trailer will run 28 to 35 feet.

Judge Parker: Then semi-trailer has the same capacity for going on there that a ten ton truck has?

A. That is correct.

By Mr. Coleman:

Q. And the tractor, plus the semi-trailer, is the equivalent [fol. 285] to two single trucks each weighing 20,000 pounds, and the effect of the tractor semi-trailer weighing 40,000 pounds on the bridge would substantially be no worse than two single trucks each weighing 20,000 pounds.

A. That's correct.

Q. The South Carolina law construes those two units as one, does it not?

Judge Parker: Oh no, you can't prove that. We will do that ourselves.

Mr. Coleman: That is all.

* * * * * * *

Mr. Funkhouser: When we appeared before Judge Glenn at Rock Hill, I made a motion before him for an interlocutory injunction on the ground that he alone could grant it under the authority of ex parte Hobbs, which I construed to hold that a single District Judge, where you had two grounds in your application, could grant an interlocutory injunction. I want to amend the former motion that we made then on the supersedure issue so as to base it not only on that ground, but also on the constitutional ground of a burden on Interstate Commerce.

Judge Parker: I thought that was what we have been trying to do.

Mr. Funkhouser: I want it to show in my motion.

Judge Parker: Is there any objection? The motion to be permitted to amend the motion is allowed.

Mr. Beall: If the Court please, we would like to offer in [fol. 286] evidence a certified copy of the original Senate Bill S-1629 which later became the Motor Carriers Act so that it will be available for comparison with the language of the Act as passed and the language in the bill at its original introduction.

Mr. Griffith: It is just as the Court prefers, but we presume that the Court will take judicial notice of the Committee report which we have already handed up. I don't see why he wants to encumber the record. I was going to suggest to the Court, that the Court has a right to look into the legislative history of the Act.

Judge Parker: I don't think there is any doubt about that.

Mr. Beall: I only wanted to be on the safe side. I only wanted to be sure that the documents were available to the Court, if the Court feels it can take judicial notice of these things, and incorporate them in the record.

Mr. Griffith: We admit they are before the Court.

Judge Parker: It is admitted by counsel for the defendants that the Senate Bill 1629, known as the Wheeler Bill with its amendments, which became the Motor Carriers Act, is before the Court and the Court can take judicial notice thereof, and plaintiff objects to the introduction of the bill on the ground that it will unnecessarily encumber the record.

Objection is thereupon sustained.

Mr. Funkhouser: I suppose this same rule will apply to all the various bills that lead up to the enactment of the Act?

Judge Parker: I think so.

Mr. Beall: Here is a matter which has no connection with the legislative history of the Act. There is only one page, one paragraph of this pamphlet, entitled "National Motor Freight Classification" on which motor carriers base their rates, and the page is No. 111A which contains a rule which was made necessary because of the conflicting State weight law.

Judge Glenn: Who made the rules?

Mr. Beall: The motor carriers.

[fol. 287] Judge Parker: It is filed with the Interstate Commerce Commission. I think we can take judicial notice of that, but you might put it in.

Mr. Griffith: We have no objection.

Judge Glenn: Read what it says.

Mr. Beall: (reads) "National Motor Freight Classification, D. R., under rule 13, page 111A, Section 2 of the rule:

"Volume ratings shown in this classification do not apply in states where provisions of law so restrict the payload limits as to make the applications of ratings invaluable or impracticable. In such states the carrier shall in rate making provide its own rules for volume ratings so as to comply with such restrictive law."

Mr. Beall: These are matters of committee hearings. It is not necessary to put in all the pages.

Judge Parker: It is not necessary to encumber the record. They are available to the Supreme Court. If the Supreme Court wants to see them, we have notice of them here. We can take judicial notice of that.

Mr. Ross: I desire to offer four sheets. They are statistics indicating the mileage in the various highway systems, including South Carolina, of different types of roads and for the United States as a whole indicating in a general way the necessary highway transportation system. The copies are certified. These are some that I think are unnecessary. I will detach those if permissible.

Judge Northcott: Does that include any statistics in regard to bridges?

Mr. Ross: No, sir, it does not, except that they may be included in the total mileage perhaps.

Judge Parker: Let them be received. Has the defense objection?

Mr. Griffith: None, except our standing objection of irrelevancy.

Judge Glenn: We think they are highly relevant.

[fol. 288] The Four Sheets of statistics referred to by Mr. Ross and offered by him are received in evidence and marked "Plaintiff's Exhibit 11."

Plaintiff rests.

Testimony Offered for the Defendants

Mr. Griffith: If the Court please, I thought of reading the testimony of Mr. Moorefield, but I do not think I will go into it except to give you a brief summary of what it covers.

Judge Parker: I understand the testimony is filed in the record?

Mr. Griffith: Yes, sir.

Judge Parker: Just tell us what it is about and read such portions as you think fit the Carolina States.

Mr. Griffith makes an oral statement, giving to the Court a brief summary of the salient points in Mr. Moorefield's testimony.

Judge Parker: Are there any matters in the report of the Legislative Committee's report that you wish to call attention to?

Mr. Griffith: Not at this particular time. I wish to offer in evidence at this time Senate Document No. 43. This was an investigation made by the Interstate Commerce Commission, or some branch of it, on the matter of the transportation industry. The purpose of offering it is to show both sides of the picture. We haven't attempted to go out and get witnesses to come in and contradict the plaintiff's evidence. We offer it for the purpose of showing the two sides of the question. It is a report by taking testimony of people, similar to what was taken here, from all over the United States. Senate Document No. 43, which was taken at the time of the consideration of this Act.

Mr. Ross: Is that a proposed report of the Examiner of [fol. 289] the Commission?

Mr. Griffith: Yes, Leo J. Flynn.

Mr. Ross: This is a proposed report. There was a report of the Commission which was to some extent adopted.

Mr. Griffith: This was a report of the facts, like a Master sitting on a hearing on which he was making a finding.

Judge Parker: Is that a document of which judicial notice can be taken or not?

Mr. Griffith: I think so, because that was a report of an Examiner who reported to the Commission and the Commission made its report and we don't know whether it was adopted or not. The final report of the Commission is in the I. C. C. report, and this was preliminary to that report.

Judge Parker: I am asking whether it is necessary to put it in the record or whether we can take judicial notice of it.

Mr. Funkhouser: We consent to it.

Judge Parker: It is consented that the Court take judicial notice of this document. Suppose you offer it in evidence and let it be admitted and it is understood in making up the record that this won't be printed, and copies of them may be used.

Mr. Griffith: I contemplated that at the time, not knowing what is in there at this time, I would like to suggest that the Commission's report which is either an exact or modification of this report, should also be included. That undoubtedly can be taken judicial notice of.

Judge Parker: All right. You can call attention to that in argument.

A. H. BOHLEN, a witness for the defendants, after having been first duly sworn, testified:

Direct examination.

By Mr. Griffith:

* * * * * * *

[fol. 290] Mr. Bohlen, what is your position?

A. Director of the Motor Vehicle Division.

Q. Of the State Highway Department?

A. Yes, sir.

Q. Did you make a tabulation as to the registration of motor trucks from 1933 to 1936 by rate capacities?

A. Yes, sir.

Q. Is that the tabulation?

A. Yes, sir.

Q. Is that taken from the record of the State Highway Department?

A. Yes, sir.

Mr. Griffith offers in evidence the tabulation referred to and same is received in evidence and marked "Defendant's Exhibit 13".

Q. Did you also make a tabulation of all motor vehicles, and if so, for what years?

A. Yes, sir; this was taken out of the Highway Department's annual report.

Q. For what years?

A. 1925 through 1936.

Mr. Griffith: Defendant offers in evidence the tabulation from 1925 to 1936 of motor vehicles, and same is received and marked "Defendant's Exhibit 14".

Judge Parker: What is the substance of these things? I like to know what we are doing as we go along.

Mr. Griffith: In 1933 there were registered trucks not over one ton, 8857, which increased in 1934 to 10,046, and [fol. 291] 1935 to 12,567 and 1936 to 14,243. There was a gradual increase in practically every rating capacity for all those years. The vehicles in 1925, the registered passenger automobiles was 153,978. They gradually increased, except in 1932 where it dropped down, and in 1936 it was 218,690. For trucks in 1925, it was 15,409 which in 1936 had increased to 30,492.

Judge Parker: All sized trucks?

Mr. Griffith: That is all sized trucks.

Q. Now, Mr. Bohlen, what class of trucks are used, particularly by carrier for hire, if you know?

A. Two to three tons, that is, on your semi-trailer combination outfits.

Q. I wish you would read the registration of those types of trucks for 1933 to 1936?

A. 1933 there were 522; 1934—764; 1935—1580; 1936—2306.

Q. Has any other type of truck increased in proportion?

A. No, sir.

Q. Do you have the weights of buses registered in this State?

A. I have some records here that I brought down from the Highway Department which shows the registration of the Greyhound buses.

Q. What do those buses show with respect to the weight of the vehicles?

A. We have one here. The bus was first registered in 1936, 17,500 pounds; another one registered in 1936, 17,500 pounds, and another one in 1936, 17,500 pounds. One in 1934, 18,500 pounds; one in 1933, 16,900 pounds; another one in 1933, 16,900, and one in 1934, 18,000 pounds. That is all I have.

Q. So far as you know are those as heavy buses as you have registered in the State?

A. Yes, sir.

Q. What is the width of those buses?

A. They run 96 inches, the majority of them, I would say.

[fol. 292] Cross-examination.

By Mr. Funkhouser:

Q. Mr. Bohlen, those weights you gave for buses were the weight when the buses were empty?

A. Yes, sir.

By Mr. Griffith:

Q. What is the maximum carrying capacity of those buses to the bus?

A. From 30 to 31 passengers.

Q. So at an average weight per passenger of 150 pounds would mean about 4500 pounds if loaded to capacity.
A. Yes, sir.
Q. What are the limits as to baggage, do you know?
A. No, sir, I might explain that in registering passenger cars, we go by the weight of the passenger car. We don't take into consideration the passengers. In registering trucks, of course, we go by the load.

By Mr. Funkhouser:

Q. If the weights you have given for a bus is empty, a loaded or gross weight is over 20,000 pounds?
A. Yes, sir.

By Mr. Blease:

Q. It depends on how many passengers it has?
A. I am going by the maximum figure.

W. W. Goodman, a witness for the defendants, after having been duly sworn, testified:

Direct examination.

By Mr. Griffith:

I am employed by the Public Service Commission of this State as Director of the Motor Transport Division. We keep record of the registration of trucks for hire. I have made a tabulation of them. The total number of *ev*hicles engaged in common carrying is 111.

Judge Northcott: For what year is that?
[fol. 293] A. For the current period. There are 1202 vehicles registered as contract carriers.

Mr. Griffith: Defendant offers in evidence the tabulation referred to by the witness Goodman, and same is received and marked "Defendant's Exhibit 15". (Tabulation showing 111 vehicles.)

By Mr. Funkhouser:

Q. Is that interstate and intrastate carriers?
A. Yes, sir.

By Mr. Griffith:

Q. That includes all of your registered carriers?
A. Yes, sir.

Judge Parker: How many were there?
A. 1202, compared with 111 common carriers.

Mr. Griffith: Defendant offers in evidence the tabulation showing a total of 1202 and same is received and marked "Defendant's Exhibit 16".

Cross-examination.

By Mr. Funkhouser:

I cannot state how many interstate carriers who have filed applications for public convenience and necessity with the Interstate Commerce Commission have filed them with us. There is about 1600 of all motor vehicle carriers, both common and contract, passenger and others. In other words, there are 1600 of those that would come under the jurisdiction of the Interstate Commerce Commission. I don't have the figures as to how many from within the State of South Carolina. It is true the Interstate Commerce Commission construes the term common carrier differ-ntly from what our Commission construes it in South Carolina. The irregular route common carrier as defined under the Federal Motor Carrier Act is the contract under the South Carolina law generally. That is the only difference.

[fol. 294] CLIFFORD OLDER, a witness for the defendants, after first being duly sworn, testified as follows:

Direct examination.

By Mr. Griffith:

Q. Mr. Older, are you the Clifford Older who was referred to in the testimony yesterday?

A. I presume so. I know of no other person by that name. My present home is in Willomet, Illinois, a suburb of Chicago. The first formula that I know of that was proposed for the design of concrete roads was one that I believe I advanced. However, it was merely an adapt-ion of well known engineering formulae to the particular pur-

pose. For the first time, I believe, I proposed that formula used in the design of concrete pavement. The Older formula referred to yesterday was the formula that was prepared by me and so far as I know it was the first one that was proposed. I graduated from the University of Wisconsin, College of Engineering, with a degree of Bachelor of Science in Civil Engineering in the year 1900; for six years after that, until 1906, I was employed by a number of different railroads in various capacities. From 1906 to 1924 I was an employee of the Illinois Highway Department. From 1917 to 1924 in that period I was Chief State Highway Engineer; from 1924 to the present date I have been in consulting practice; part of the time in cooperation with certain definite associates; for the last three years without any associates in business or in the consulting profession. I conducted the highway test known as the Bates test. The Bates test included a series of sections of highway laid on a road in a location where no traffic could use the location and consisted of 67 sections of highway, each of different construction in one way or another, the total length being about two and a half miles. The plan of the road was to test not only different types of paving construction, but different thicknesses, to test every element that entered into the strength of carrying capacity of the various sections of pavement. I might illustrate in one way, how the attempt was made to determine the load limitations of these various sections, by referring first to [fol. 295] the concrete sections.

We began the series of concrete sections with a section four inches thick, a uniform thickness of four inches. The next section along the road was five inches thick, and then with spaces of one inch, the succeeding sections were increased until a maximum of nine inches was reached. In other types of road, such as were called flexible types, meaning by that a gravel or stone base without any cement in it, over which was laid some kind of varying surface, we had a similar series of sections. We made steps in thicknesses and so on through the various so-called brick types and asphalt types or concrete-asphalt surfaces, on these flexible bases. The final plan was to begin operating over this test highway a fleet of trucks, beginning with trucks of the lightest weights that we could get or that we

have available, and operating them along one side of the road and back the other, noting very carefully what happened to these various sections. Then stepping up the load of the trucks, particularly on the rear axle, operating them again for a particular number of times and again noting and observing the behavior of each of these various sections, and so on, stepping the load up by multiples of 1000 pounds in general until we reached the legal limit that was then in force in Illinois, which was 16,000 pounds an axle, and when we reached that limit, we ran the trucks many more times because that was the consideration of design that we were looking for, and we stepped them up beyond the legal limit.

Prior to the traffic test, I might say that we carried on innumerable individual tests with loads, that is, the application of a load at corners and centers and various other places throughout the slab, and observing, as one would in a laboratory, the behavior of the materials, in an endeavor to determine the laws, the natural or fundamental laws governing the behavior of the road. The truck traffic test, as a matter of fact, was to test or prove whether or not any theory might be developed from a scientific investigation as regards producing a formula for design. If I were [fol. 296] called upon to build a highway today the first thing I would want to know would be whether there was any limitation of funds. If I were going to apply my formula and make up a formula today for the building of a certain highway or road the first thing I would want to know would be the load limitation. Without knowing the load limitation the formula is valueless, as far as I know. I mean by my formula that I would try to adopt a plan by which a person wanting to know how to build a certain strength road, they could apply their formula and get it. With the experience I have had in engineering, I could not tell the strength of a road by looking at it. There are so many factors that you cannot see by merely traveling over a road, or even getting out of your car and examining it, even if you know how thick it is, how wide it is, and the various other matters that you can see before your eyes; for example, by merely looking at it you know nothing whatever of the strength of the concrete, if it is a concrete pavement. There is most decidedly a difference in the strength of concrete pavements.

Judge Glenn: Regardless of the thickness, the same thickness, in concrete, there is a different strength in it?

A. Yes, sir.

Judge Glenn: Does that vary considerably?

A. Yes, sir.

By Mr. Griffith:

Q. What else would you want to know?

A. I would want to know a good deal about the type of the soil on which the pavement was to be laid.

Judge Glenn: We take for granted this gentleman has had a whole lot of experience. How about bringing him down to our roads down here?

By Mr. Griffith:

Q. You cannot give an opinion on a road by just looking at it?

A. I could not give an opinion that would not be modified between limits of perhaps considerable spread.

Q. Is it a fact that any opinion has got to be varied to a certain extent?

[fol. 297] A. I am certain that mine would have to be.

Q. Let me ask you this question. What do you mean by how much a road can bear?

A. A matter of judgment aided by formula. That won't apply to the average conditions as you know it and presume that may occur in this location. You may arrive at a figure that you could consider is a fair one under the circumstances as known to you.

Q. What percentage of the ultimate strength do you consider is the proper basis?

A. Something under 50%, of the ultimate strength.

Q. Now, if a concrete road is used for weights under 50%, how long will they last?

A. As far as the engineering profession knows, I believe it would last indefinitely until it becomes obsolete.

Q. I will ask you this question in that connection. Do roads which are subjected to heavier loads than they should have deteriorate at once or gradually?

A. The deterioration that may come from an overload—by overload I mean a load that produces a stress in the pavement slab in excess of 50% of the ultimate stress—it may

be very slow or very rapid, depending upon the amount that this 50% of the ultimate strength is exceeded—I might illustrate that in this way: If that ultimate stress—I mean if the stress caused by the load is 90%, we will say of the ultimate stress—the failure may appear almost immediately, perhaps a few days after the road is opened to traffic. It simply depends upon how many loads that produce that ultimate stress have to go over it each day, not ultimate stress, but 90% stress that goes over it each day. Now, if the loads that use the highway cause a stress of 80% of the ultimate, it may be a week or ten days before anything would show up, and that daily increases. As the load stress approaches to somewhat higher than 50% for example, 54% or 55%, it might not cause any visible signs of distress for a number of years. It might be possible that the road is not a heavily traveled road, and the number of vehicles that travel it are [fol. 298] few and the failure is never reached until the road becomes obsolete; it would not fail, but it does not take very much more than 50% of the ultimate, say 60%, when the loads break the road in a comparatively short time. This is based upon well known laws on the behavior of structu-al material. So, when the deterioration as you speak of takes place, I can't say. There may be signs of visible deterioration right away. There may be no visible deterioration. It may be delayed for any period, from a few years to perhaps 10 years, or even more.

Q. But destruction begins before the least sign of destruction is seen?

A. After it occurs, however, it is likely to be very rapid from that time on.

In so far as I know, if a road is not subjected to a greater weight than around 49% of its ultimate strength it would probably last forever, in so far as carrying loads, but not the natural agencies of destruction and obsolescence. I have had a considerable number of proper illustrations of that in my experience. The strength of concrete varies. The same concrete constructed in as nearly the same manner as we know how to make it will still vary in strength. There is also a variation in the strength of the subgrade and foundation. It varies in different parts of the state, and even in the same territory approximately. It varies sometimes at very short intervals along the particular piece of road. It is due to such variations as those I have mentioned that I

say that an opinion as to what a road can carry has got to be flexible.

Q. Relating to the width of a vehicle, does that have any relation to the damage to the road?

A. Yes, the width of the vehicle is inter-related with the strength of the pavement, the only thing, the load must have an influence. I explain that this way. Presume a 20 feet wide pavement which is called a two-way pavement, in that case two vehicles 96 inches wide can pass with a certain clearance, and the outer wheel of the two vehicles will not be required to travel immediately over the edge of the pavement on the shoulder off the pavement, as where it is 16 feet wide. The width of the vehicles in this case forces each vehicle in passing, in order to obtain clearance, to either [fol. 299] travel the wheels on the extreme edge of the pavement or perhaps on the shoulder, running off on that. Now, if the edge strength of the road is not balanced with the middle portion, or if the edge is not thickened sufficiently for that condition, then the width of the vehicle has a very important bearing upon how soon one might expect destruction of the edges of the pavement, on the roads that have the same center thickness and the same edge thickness.

Q. You have heard the testimony of Mr. Williamson, our Highway Engineer, would you give us your opinion as to the weights the concrete roads in this state should bear?

A. As I understood Mr. Williamson, as I heard Mr. Williamson's testimony, the concrete pavements, were in general of three different widths, that is, 16, 18, and 20 feet, and of two different thicknesses generally speaking. For example, some of them have an eight inch thickness at the edges, and a six and a half inch thickness at the center. I understand from his description that this extra thickness at the edge was tapered gradually down to the six and a half inch thickness at the center. Another series was seven and a half inches thick at the edge and six inches at the center, and tapering in the same way.

I think it is quite obvious that disregarding width, these differences in thickness along, assuming that the concrete is of the same strength in all cases, would mean that the thinner roads would not be able to carry the same wheel load as the thicker ones. The load carrying capacity of the concrete pavement is not only dependent upon the thickness

of the concrete, the strength of the concrete and the character of the sub-grade, but it is also dependent, to a very marked degree upon other factors in the pavement bases. For example, pavements have transfer joints to provide contraction and expansion at intervals. A pavement may or may not have a longitudinal joint or a joint running down the center of the road, so there is a further modification. Mr. Williamson's testimony indicated that part of [fol. 300] this pavement did not have longitudinal joints. For example, that part of the concrete pavement—without repeating that, I am talking altogether about concrete pavements for the time being. The concrete pavements having no longitudinal joints having a thickness of six and a half inches at the center and seven and a half inches at the edges are the weakest pavements of the lot, the reason being that in my, I will say 30 years experience in highway matters, during nearly all of which period I have been in touch with concrete pavements, it is a matter of common observation that if there is not a center longitudinal joint built into the pavement, nature will put a longitudinal crack in it. Now, when this crack comes it will separate a certain amount, due to contraction during low temperature periods. Then at the interior portion of the pavement we have an edge that is only six and a half inches thick that is exposed to the wheels of traffic. The outer edge has been strengthened to perhaps carry a heavier load, but here is an inner edge that is a weak link in those pavements. For those pavements I would be forced to give an opinion of a load that is quite low. In my judgment those pavements are not capable of supporting indefinitely wheel loads in excess of about forty or forty-two thousand pounds, subject to these various conditions we have spoken of.

Judge Parker: You say forty-two thousand pounds?

A. Forty-two hundred pounds—pardon me, making axle loads in the neighborhood of eighty-four hundred pounds. On pavements having an eight inch thickness, on the other hand, and seven and one-half mid portion and transverse joints, I would place the load limits in the neighborhood of 6400 pounds per wheel, or about 12,800 pounds per axle approximately. It might be subject to a variation of perhaps 500 to 1000 pounds per wheel, due to these various causes either way. That is the actual load supporting capacity.

Judge Parker: Is that the best type pavement we have been testifying about you are talking about now?

A. Yes, sir.

[fol. 301] Q. That is an axle load of about 12,500 pounds?

A. Yes, sir.

Judge Parker: Now, if I may interrupt you, I would like to ask you this question. What do you say as to the maximum axle load of 18,000 pounds in so many states? Is that an excessive load in those states?

A. I would say in all probability that it is. May I elaborate a little, please?

Judge Parker: Yes.

A. In the State of Illinois while I was responsible for the construction of the pavement, I spent one hundred million dollars of the peoples' money. In the law was written a 16,000 pound axle load—8,000 pound wheel load. I was responsible for building approximately one hundred million dollars worth of pavements.

It is a matter of extreme regret to me that I have seen many of those pavements fail—the concrete failed. They have been destroyed by the travel, and the necessity has arisen for the replacement of those pavements. Now the law provided for this axle load of 16,000 pounds, and a police force—a highway police force—was employed by the State not only to look after load limitations, but accidents on the highways, and to serve generally.

Some of those pavements, some considerable mileage of those pavements, in the neighborhood of six or seven hundred miles, had thicknesses approximately the same as this 7½-6 inch pavement described here. I have seen them go to pieces and require replacement. Some of them are still in use after a service of about fifteen years. Many miles of them are gone. That is one reason why I want to be conservative, and yet not ultra-conservative in estimating the life of a pavement, because I feel if I fail once I can fail again.

By Mr. Griffith:

Q. From a description of the bridges which Mr. Williamson designated "weak bridges", isn't your opinion that they would be helped by spacing the weight of a truck on sev-

[fol. 302] eral axles?

A. Mr. Williamson described, as I recall it, quite a number of bridges. They would not behave exactly alike under these conditions.

Q. With a bridge with a span the length of 200 feet, would it make any difference how much the gross weight was spaced with axles?

A. The spacing of the axles—I will have to first assume that this bridge of 200 feet length is a single span reaching from abutment to another, or an abutment to a sill, and so forth, 200 feet long. Now, the spacing of the axles would have an important bearing on parts of the bridge, but not the whole of the bridge. It would have an important bearing upon the floor—which may be likened to the sills or joists under the floor resting upon a beam in the cellar to another beam in the cellar, because that is the way it is supported. The spacing of the axle would have an important bearing on support, on the stresses produced in such stringers. It also has some bearing upon the stresses caused in the beams that support the stringers. There would be very little, if any, effect on the cross members as a whole, although usually at least four, sometimes more, suspenders of the bridge would be so affected. The destruction of the bridge as a whole, the falling of it entirely under such a load would be affected very little, if any. Practically none, I would say.

Q. I believe it has been testified to here that there is no formula to test the strength of any road except a concrete road. Do you agree with that?

A. I do.

Q. You know of no method of testing such roads as these bituminous surfaces?

A. No.

Q. You then have depended entirely on just common sense knowledge and observation?

A. That is correct.

[fol. 303] Q. Well, do you know whether or not they are designed for heavy traffic?

A. The earth types described by Mr. Williamson, I would say that they are not designed, or at least that they are not suited for heavy traffic.

Q. What is your judgment as to the weight that such roads should be subjected to?

A. With the person responsible in such case, I would sure see in order not to encourage excessive maintenance

and reconstruction that the road should be confined practically to that of the average passenger car or truck of equivalent weight and tire equipment.

Q. Well now, how about the dirt type of road?

A. The same thing would hold true. Of course there are cases on certain, particularly clay soils or soils of that nature when the surface material might support almost any load without any serious detriment, as far as weight is concerned. Subsequently comes a wet period and it won't support any load without serious cutting up and destruction of the surface, and the amount of the destruction, in my experience and judgment, depends upon the weight of the vehicle to a large extent.

Q. Would axles help you very much—distribution of weight by axles?

A. Not very much.

Q. You think that the weight of a vehicle has a direct relation to its danger or safety?

A. Yes, sir, I do. The heavier the vehicle the more destruction it is capable of causing if it is in an accident. It is true, in so far as I know, that with equal braking facilities, mechanical devices, the heaviest truck on the highway or the heaviest bus might stop in just as short distance as the lightest passenger car, both equipped with the same proper brakes. Theoretically they should stop in the same distance, coming down from an equal speed, but if either of these vehicles, or we will say both of them strike an object at the same speed, presuming they have their brakes on but are still moving, the damage done by the [fol. 304] heavier vehicle will be in proportion to its weight as compared with the light vehicle.

I might illustrate it by say, suppose we have in our hand a tennis ball and a stone, both of the same size but of different weights. We throw the ball and the stone up against the window, and when they reach the window they are both traveling at the same rate of speed. The stone would undoubtedly crash through the window—the tennis ball would have no effect on the window.

Personally I always like to give those illustrations that I can grasp very readily myself.

The same thing applies in the case of the heavier vehicle, and the light vehicle on the highway. In the City of Chicago, for example, it is almost an every day occurrence

that a passenger car rams the street car. Ordinarily the passenger car suffers seriously. Perhaps the driver suffers seriously, depending on his speed and circumstances. The passengers in the street car are practically unhurt. Less often a truck or a bus rams a street car. We can't say that any two of them are going at the same rate of speed, but we know by observation that the truck collision, on the average, with the street car not only endangers the truck driver but very frequently injures or even kills occupants of the street car, merely due to this momentum that must be suddenly stopped, in the one case very great and in the other comparatively small. Therefore, I feel the weight of the vehicle has a very important bearing upon accidents, attributable to highway accidents in general.

Q. How about the length of a vehicle?

A. The length of a vehicle, as I see it, is a matter of passing. Obviously it requires a greater length of time for one vehicle to overtake a long vehicle, to get past it and in the clear than if the passed vehicle is relatively short. That, I think, has been advanced previously in testimony. I agree with it.

Q. In that connection do you think the width of a vehicle has anything to do with the difficulty as to the length of [fol. 305] time in passing it?

A. Very much so. I will illustrate it in this way. Supposing I am traveling in a car along the highway. I find that I wish to pass a slower moving vehicle ahead of me. Circumstances are such that I can't swerve out into the opposite lane of traffic to see what is in that opposite lane of traffic. Perhaps there is a curve ahead, or other cars coming. Numerous circumstances might cause that until I have approached the slower moving car as closely as I think it is safe to do so, and still have plenty of room to swerve out to get by and past.

In that position a narrow car in front of you—you are sitting in the driver's seat. From your eyes past the edge of the car on the left, the angle that your vision makes with the center line of the opposing traffic lane will extend much further down the highway than in case the vehicle is wider; your angle of vision is then cut down at a much shorter distance.

Q. Is it cut off in proportion to the width?

A. Quite rapidly.

Judge Glenn: In other words, six inches difference would make a great difference?

A. That is true.

By Mr. Griffith:

Q. So, you would say all these factors have a direct relation to the safety on the highway?

A. I would.

Q. Would you say they have a direct relation to the congestion on the highway.

A. Yes. After hearing Mr. Williamson testify I think the gross load limitation in this State of 20,000 pounds is decidedly generous. I agree with the gentleman from the Bureau of Roads that in so far as the highway safety itself is concerned, axle or wheel load determines the amount that should be allowed. That is on concrete roads and it is more or less true also on the bituminous roads. It is not true so much so on dirt roads.

[fol. 306] Q. I ask you if in your opinion a load limit of 20,000 pounds has any relation to the preservation and protection of the highway?

A. I believe that it does.

Q. Would it be possible under a 20,000 pound gross weight limitation to get an excessively high actual limit?

A. Excessive with regard to the pavements of South Carolina?

Q. Yes, sir.

A. Yes, sir; it would.

Q. Assume the commercial vehicles that have been testified here, the haulers for hire, have three axles. Would you say under those circumstances that the excessive axle load would be infrequent?

A. Yes, very infrequent, in my judgment.

The 20,000 pound gross weight would limit reasonably the axles on a three-axle truck, as such trucks are ordinarily designed the axle load in that case would be down to quite reasonable limits, with respect to the carrying capacity of the roadways of the State.

I said in the beginning that when I started out to building highways, the first thing I wanted to know was the traffic that would go over it. That is the reason I developed my formula. In my experience as an engineer in the years past, working for the State of Illinois, I have never con-

templated that the roads of this country would be subjected to the burdens that are now being imposed on them by heavy trucks. It is a difficult matter to enforce the highway laws. The axle load limits would be and is harder to enforce than a gross load, because especial equipment is necessary in the hands of the enforcing officers in order to weigh axle loads. Gross loads may normally be weighed at existing scales that may have been checked.

Mr. Griffith: The witness is with you.

Cross-examination.

By Mr. Funkhouser:

Q. Mr. Older, when did you last design a road?
A. Including city streets—city pavements?
Q. No, sir. I am talking about highways.
A. I think about 1932.
[fol. 307] *A.* I believe approximately that date.
Q. And did you design that road without considering axle weights?
A. No, sir.
Q. Didn't you make the statement a moment ago that it wasn't necessary to consider axle weights in designing a highway?
A. I think not.
Q. I understood you to say it was the gross load and not the axle weight that counted in the highway.
A. I am sorry but I didn't make any such statement, as I recall.

Judge Parker: I understood him to say the test was easier to apply—the law was easier to enforce on gross load than axle load.

By Mr. Funkhouser:

Q. Well, now let's take that up for a moment. Isn't it a fact the axle weight is easier to enforce than the gross weight laws?
A. Not in my opinion and experience.
Q. Then you disagree with the American Association of State Highway Officials? I would like to read to you page 9 of this pamphlet, which is generally known in highway circles, entitled "Who Shall Use the Highways and How:"

'Highway stresses are ruled by wheel loads and not by gross loads. Those who really seek the protection of the highways should help to impress that fact indelibly upon the minds of legislators and law enforcement officers. For it so happens, that the wheel load is not only the more critical factor but is also the more easily determinable factor. To measure gross loads, stationary platform scales are a practical necessity; and, unless they are placed and actually operated on at least all important roads, the gross load limitation, whatever it may be, will be a virtual dead letter. The wheel load limitation is, on the other hand, easily enforceable by officers, equipped with small, portable scales, who appearing suddenly, first on one road, then on another, may plant their telltale instrument by the roadside and require any driver to run his heaviest wheel on it, and so, quickly and practically, detect the law violators. And of this at [fol. 308] least there can be no question: That for the protection of the roads an enforced wheel load limitation is immeasurably better than an unenforceable gross load limitation.''

Do you agree with that?

A. I certainly don't. I have had experience in the law enforcement—I haven't said it—but for a part of the time I was State Highway Engineer I had the direction of the Highway police of the State, and we tried both methods.

Q. Do you know of the American Association of Highway Officials.

A. I do.

Q. Isn't that about the most scientific and learned association of highway officials in America?

A. I would say so.

Q. But you do disagree with them?

A. Yes, sir.

I have been in consulting practice since 1924. Prior to the last three years I have been connected with the firm of Cosoer, Older & Quinlan, an engineering organization. For the last three years I have been offering—or acting as consultant whenever called upon to do so—whenever I decided to accept the assignment. In recent years I have done considerable appearing before various bodies and testifying. I believe I appeared before the North Carolina Legislature in 1933 when there was a bill similar to the present law in South Carolina introduced in North Carolina.

Q. And there you urged the Legislature to reduce their weights and size to the present law of South Carolina, did you not?

A. I don't remember the exact figures that were used at that time.

I appeared on behalf of the railroads and have appeared before other legislative bodies on behalf of the railroads; the Legislature of Missouri at one time, or rather a legislative committee; Kansas at one time; Illinois, Georgia—that is all I recall. I did not appear in Tennessee, or Kentucky or Alabama, not before the legislative committee. I never appeared at all in Alabama, never in Tennessee that I recall. I never appeared before any legislative committee in Kentucky, although I recall giving a deposition that was used in [fol. 309] Kentucky. I persume it was used before the Legislature. That is part of the kind of consulting practice I have been in in recent years. It is not true that I have been part of my time a railroad lobbyist.

The test road construction was started in 1920, finished in 1931, and the test went along, these traffic tests went on through 1922 and 1923.

Q. Why didn't you tell this Court when you were testifying a moment ago and giving the results of that test that the conditions were entirely different from today, and that you used a solid tire in that day?

A. It didn't occur to me. I am perfectly willing to add that testimony. The solid tires were used on the trucks.

Q. And 1922 was fourteen years ago, wasn't it?

A. Yes, sir.

Q. Isn't it a fact that great advances have been made in the mixing of concrete and in the building of roads in the last fourteen years?

A. Well, the word "great" is rather an indefinite term. Advances have been made, yes, sir.

Q. Isn't it a fact also that great advances have been made in the building of automobiles scientifically, and from an engineering standpoint and in the distribution of the loads of those automobiles?

A. I don't know a great deal about the building or construction of automobiles.

Q. So you don't know whether the distribution of loads have made—the science of distributing loads has made any progress in recent years?

A. I don't know that. I am entirely ignorant of that fact.

Q. How can you tell this Court that any tests you made fourteen years ago, with the changes in the mixing of concrete and the building of roads and building of automobiles would be comparable to any conditions today?

A. Because fundamental laws do not change with time.

Q. I believe you said you built one hundred million dol- [fol. 310] lars worth of roads in Illinois. Is that true?

A. Approximately that amount.

Q. And I believe you said you had been distressed, or something to that effect, to notice those roads wear out. Is that true?

A. Yes, sir; part of them—not all.

Q. Were those the same roads you built?

A. Part of them, yes, sir.

Q. And what weight limits did you allow on those roads at the time you built them?

A. I tried to design them for a 16,000 pound axle load, to the best I knew how.

Q. And did Illinois allow a 16,000 pound axle load?

A. Yes, sir.

Q. What does Illinois allow today?

A. 16,000 axle load, so far as I know.

Q. It has never changed it, has it?

(No answer.)

Q. Did you appear before the Legislature of Illinois?

A. Yes, sir.

Q. And didn't you try to get them to lower the axle load?

A. Yes, sir.

Q. And they refused to do it?

A. Yes, sir.

Q. Now, I believe you said that when a concrete road is properly built it lasts forever, didn't you?

A. Not exactly.

Q. Please state what you said.

A. I said if the road was so built that the loads that came upon it did not stress the concrete in excess of its endurance limit, that in so far as I know the loads would not destroy it, no matter how many times they used it. That may not be the exact language, of course, but that is the intent.

Q. Have you made any study of the climatic conditions of South Carolina as to its roads?

A. Not any special study, no sir.

[fol. 311] Q. Have you made any study of the soils and subgrades of the various main highways of this State?

A. No sir.

Q. Have you made any study of the workmanship of the building of the highways in this State?

A. No sir.

Q. Have you made any study as to the mixture of the concrete?

A. No sir.

Q. Do you know what kind of cement and what proportion of cement is put to sand on the highway?

A. I don't know.

Q. Do you know anything about the joints to which you testified, about the highways of South Carolina?

A. I do, as described to me individually by Mr. Williamson.

Q. I don't want your hearsay. I want your own knowledge.

A. As one engineer to another I would say I knew it, because I believe it.

Q. Have you observed the joints in the highways.

A. No sir.

Q. Does a high pressure pneumatic tire and low pressure pneumatic tire make any difference in the stresses on a road?

A. A very moderate amount on concrete pavements, in accordance with my way of figuring.

Q. Why is it then the Bureau of Roads, which has distributed about two billion dollars to the highways of this Nation, makes a distinction in axle load that can be carried when they have low pressure and high pressure tires?

A. I can't answer for the Bureau.

Q. Can you answer for yourself why would that distinction be made?

A. Why should the Bureau make that distinction?

Q. No. You said it wouldn't make much difference, and you say you can't answer for the Bureau. I am asking your opinion as an expert why would anyone, on what theory or what philos-phy could anyone reason that way?

A. Well now, the effect from a theoretical point of view [fol. 312] varies depending upon the type of pavement you are dealing with. On the concrete pavements, in accordance with the method of design they usually use, it would not

make any difference. The gross load would produce the result.

I do not claim that the method I use produces an exact mathematical result. I do believe that it produces a closely approximate result, the correctness of which is closely approximate to the correct result. Now there are other formulas in existence. The one, so far as I know, the Bureau of Public Roads relies upon to a considerable extent, is called the "Westergard Formula", which was mentioned here. That formula, when used, produces decidedly differ-nt results, depending upon the tire equipment, particularly pneumatic tires, as distinguished between low pressure and high pressure. In one place the area of contact of the tire with the pavement is small, as compared with the other. Now I reserve the right to myself to differ with the Bureau on the application of the formula.

Q. That formula of which you are the father—I believe you stated it was your child—was intended to have roads built taking into consideration axle weights and not gross loads, wasn't it?

A. Yes, sir.

Q. Then what has made you change your opinion and get away from the test of axle load to gross load?

A. I haven't, so far as the design of the pavement is concerned.

Q. I believe you drew some reference or made some comparison a moment ago about the difference between a ball and a stone throwing it against something, did you not?

A. I did.

Q. Is the difference between a bal-oon tire and a solid tire just about the same difference as between a ball and a stone?

A. In effect on the highway surface, no.

Judge Parker: Isn't there this difference between the two tires, that the l w pressure tire contacts the pavement over a wider area?

[fol. 313] A. Yes, sir.

Q. And the pressure of the weight of a truck touches the pavement in an area three or four times as great as under a high pressure tire. Is that right?

A. Your Honor, I do not recall the relative area. Its is my recollection that the difference between the area contacted by the high pressure tire and the low pressure tire

for the same type vehicle, is not as great as two or three times, although I would not say I was not mistaken, as the area might be——

Judge Parker: Of course if the area of contact was twice as great, the pressure on the particular part of the road contacted would be half as much?

A. The unit pressure would be half as much, but in the design of the concrete road it is not the unit pressure on the surface of the pavement that has much effect on the behavior of the pavement. It has some effect but it is not in proportion to that unit pressure, by any means.

Judge Parker: I don't know that I get you.

A. Supposing we have a long beam and we place a load concentrated right in the center of an inch of length of the beam. We take the same load and spread it over two inches. It doesn't make very much difference in the breaking strength of that beam.

Judge Parker: The tension extends beyond the point of contact?

A. Yes. Of course there is a theoretical complication there, but the illustration I think holds good. There comes a time if you spread it over near the end of the beam it would have a decided effect, but a small variation near the middle doesn't much affect it.

Q. When did they pass the prohibition in Illinois against the use of solid tires?

A. That was after I left the State Highway Department and I haven't these dates.

Q. And the whole time you were there and you deprecated the wearing out of the roads, solid tires were used on [fol. 314] those roads the whole time?

A. The whole time I was with the Highway Department solid tires were used yes, but I want to modify that by saying I observed the destructive effect just the same after the pneumatic tires came into use, and the solids have been prohibited during the last——

Q. Wouldn't you think from your former testimony that because of the former tires the limit of elasticity had been stretched in those roads by the use of the solid tires and their deterioration naturally would follow later?

A. I think that is an extremely remote possibility; so remote that I would say in my judgment it is clear out of the question.

Q. I believe you heard Mr. Williamson's testimony today, didn't you?

A. Yes, sir.

Q. And you heard him state that these main thoroughfares would carry axle weights of 18,000 pounds?

A. Yes, I heard his testimony.

Q. In his testimony you have disagreed with him?

A. Yes, sir.

Q. And you still disagree with Mr. Williamson?

A. Yes.

Q. You realize, of course, he is the gentleman in charge —he is the chief engineer of this Highway Department, isn't he?

A. Yes, sir.

Mr. Funkhouser: That is all.

Mr. Griffith: That is all.

Mr. Griffith: May it please the Court, we would like to call to the Court's attention and ask them to take judicial notice of the Act of the Legislature authorizing the investigation which resulted in this report already offered in evidence.

Judge Parker: All right. We will take judicial nptice of [fol. 315] that. You call it to our attention so we will know where to find it.

Mr. Griffith: If your Honor please, I am doubtful of another thing. There has been quite a bit of stress laid upon the width of vehicles in this Act. The former law, I presume, would be repealed by the passage of this Act. I want to ask the Court to take judicial notice of the law as it existed in 1932 in the Code, prior to the passage of this Act, and I desire to call attention at this time that the width was not changed—the width of *the width of* the vehicle.

Judge Parker: The 1932 Act was 90 inches was it?

Mr. Griffith: The law prior to the adoption of the 1932 Act was 90 inches width. There was no change in that. I am asking the Court to take judicial notice of all motor vehicle laws contained in the 1932 code, although they are being repealed by this Act.

Judge Parker: Well, we do that. We will consider any Act of South Carolina you call our attention to.

Judge Northcott: Do you mean, Mr. Griffith, the width permitted under the law of South Carolina has never been greater than 90 inches?

Mr. Griffith: That is right, since there has been any regulation.

Judge Northcott: What was the old law in regard to gross weight?

Mr. Griffith: Your Honor, off-hand I wouldn't be definite about it, but those trucks of the type which you are investigating here I think that would be limited to 10,000 pounds actual load.

Judge Northcott: Pay load?

Mr. Griffith: 10,000 pounds axle load and 40,000 pounds gross load.

Judge Northcott: What do you mean "actual load"?

Mr. Griffith: Axle load.

[fol. 316] Judge Northcott: I thought you said "actual".

Mr. Griffith: No; axle load.

Judge Parker: I asked a question about that the other day and somebody told me the in-tial legislation was 20,000 pounds and never had been 40,000 pounds. When the State Engineer was on the stand this morning I addressed an inquiry to him as to why they reduced the load allowed and somebody said that and I got the impression, at least, that this was the initial limitation; there had been no change made with respect to it.

Are there any other witnesses for the defendant?

Mr. Griffith: I believe not.

[fol. 317] PLAINTIFFS' EXHIBIT No. 2

United States Department of Agriculture, Bureau of Public Roads,

Washington, D. C.

November 28, 1936.

Payments to all States, District of Columbia, and the Territory of Hawaii from Appropriations Available to the Bureau of Public Roads

Fiscal Years 1918-1937 (July 1-October 31, 1936)
$2,197,634,970.13

[fol. 318] PLAINTIFF'S EXHIBIT No. 3

November 28, 1936.

Payments to State of South Carolina from Appropriations Available to the Bureau of Public Roads, by Fiscal Years

Fiscal Year	Total Payments
1918	$7,807.68
1919	60,593.98
1920	301,974.74
1921	876,823.16
1922	1,431,877.23
1923	1,363,450.11
1924	1,173,907.44
1925	1,220,841.20
1926	1,810,458.38
1927	1,187,023.41
1928	1,259,902.48
1929	816,484.11
1930	926,038.22
1931	3,306,421.66
1932	1,898,294.20
1933	2,151,541.73
1934	2,348,434.02
1935	3,742,636.16
1936	2,433,242.61
1937 (July 1 to Oct. 31, 1936)	1,423,385.11
Total	$29,741,137.63

[fol. 319] PLAINTIFFS' EXHIBIT No. 4

Mileage of Highway and Grade Crossing Projects in South Carolina Improved With Funds Available to the Bureau of Public Roads as of October 31, 1936

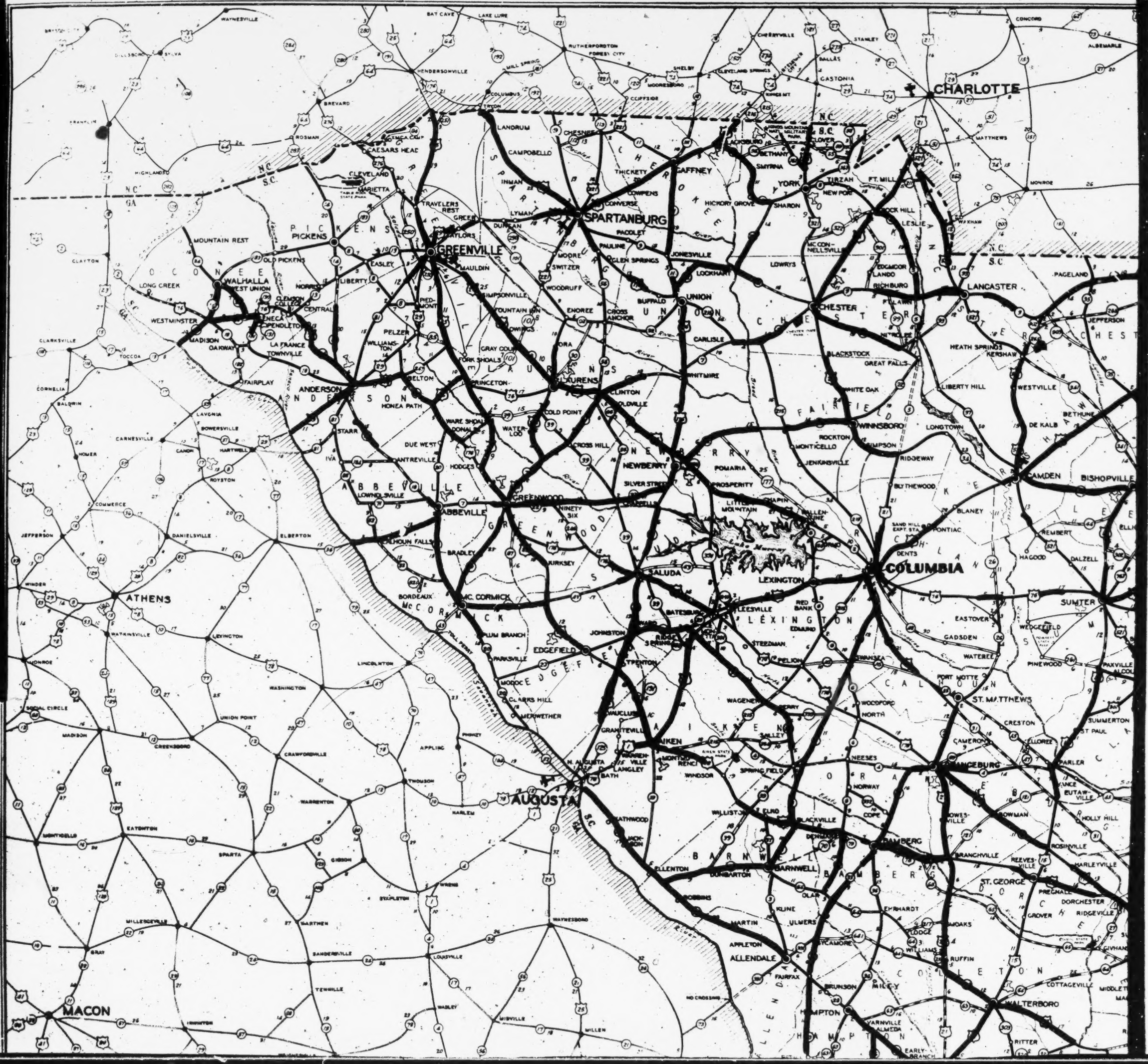
Graded and Drained	84.9
Sand-clay, Untreated	861.0
Sand-clay, Treated	624.4
Gravel, Untreated	100.7
Gravel, Treated	97.4
Low-cost Bituminous Mix	10.0
Bituminous Macadam	3.3
Bituminous Concrete	193.5
Portland Cement Concrete	795.8
Bridges and approaches	26.4
Railroad-Highway Grade Separation	0.4*
	2,797.8

* Involves the elimination of 18 grade crossings and the protection by signal devices of 18 grade crossings.

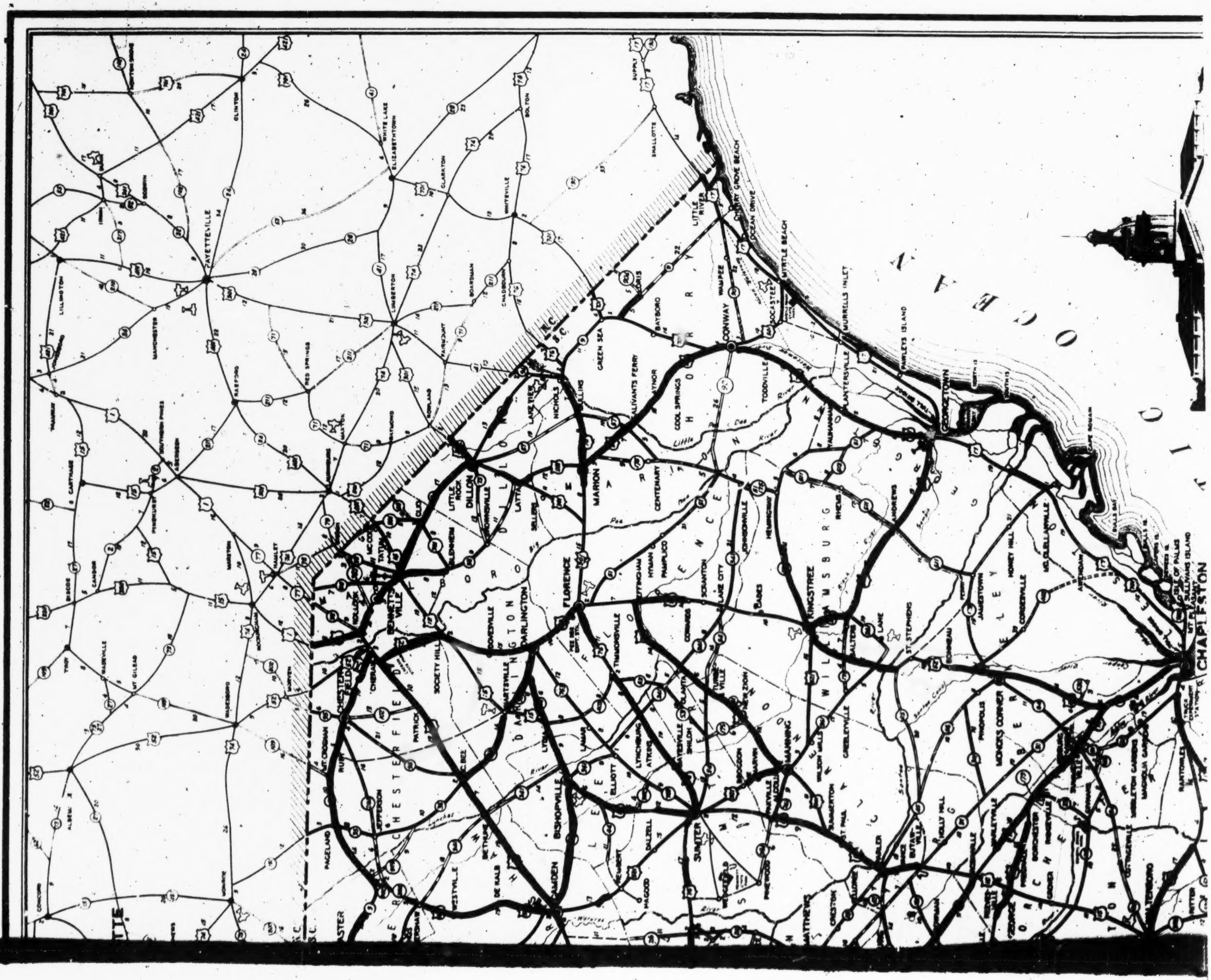
DEFENDANTS' EXHIBIT No. 7

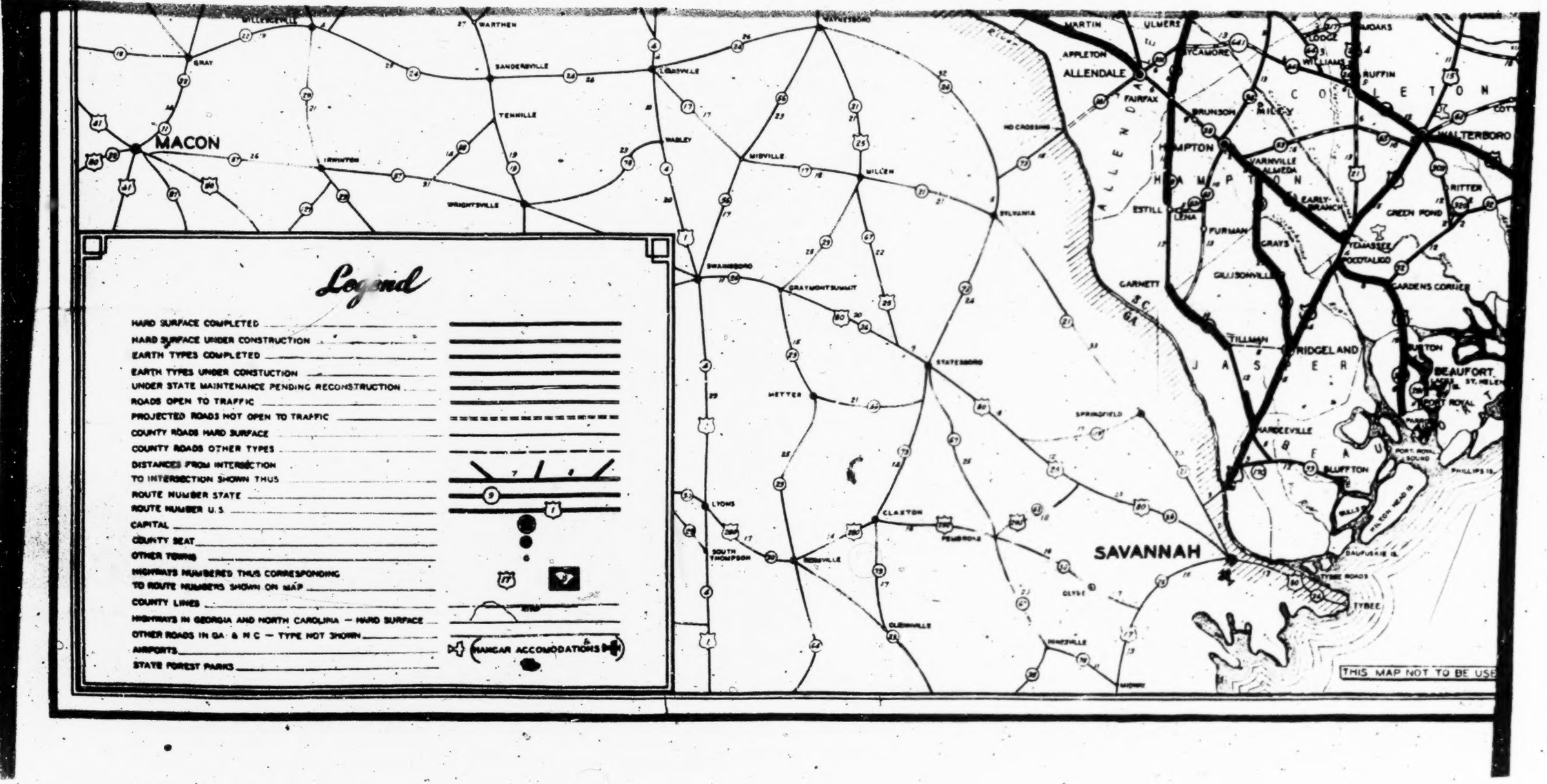
This is a map of the State Highway System of South Carolina, showing (in addition to the regular map), in red ink, the roads on which federal aid has been used.

(Here follows map of South Carolina State Highway System, Defendants' Exhibit No. 7)


CHARLOTTE
SPARTANBURG
GREENVILLE
ANDERSON
GREENWOOD
ABBEVILLE
NEWBERRY
LAURENS
UNION
CHEROKEE
YORK
LANCASTER
CHESTER
FAIRFIELD
KERSHAW
LEE
SUMTER
CLARENDON
ORANGEBURG
CALHOUN
COLUMBIA
LEXINGTON
AIKEN
AUGUSTA
BARNWELL
ALLENDALE
HAMPTON
COLLETON
BAMBERG
DORCHESTER
BERKELEY
CHARLESTON
WALTERBORO
CAMDEN
BISHOPVILLE
ATHENS
MACON
PICKENS
OCONEE
EDGEFIELD
McCORMICK
SALUDA
WINNSBORO
CHESTERFIELD
MARLBORO
DARLINGTON
FLORENCE
MARION
GEORGETOWN
HORRY
WILLIAMSBURG
LEE
SUMTER
CLARENDON
ORANGEBURG
CALHOUN
BERKELEY
CHARLESTON
DORCHESTER
COLLETON
HAMPTON
BEAUFORT
JASPER
MARLBORO
DARLINGTON
FLORENCE
MARION
GEORGETOWN
HORRY
WILLIAMSBURG
NC
SC
GA

DEFENDANTS' EXHIBIT NO. 7




Legend
HARD SURFACE COMPLETED
HARD SURFACE UNDER CONSTRUCTION
EARTH TYPES COMPLETED
EARTH TYPES UNDER CONSTUCTION
UNDER STATE MAINTENANCE PENDING RECONSTRUCTION
ROADS OPEN TO TRAFFIC
PROJECTED ROADS NOT OPEN TO TRAFFIC
COUNTY ROADS HARD SURFACE
COUNTY ROADS OTHER TYPES
DISTANCES FROM INTERSECTION
TO INTERSECTION SHOWN THUS
ROUTE NUMBER STATE
ROUTE NUMBER U.S.
CAPITAL
COUNTY SEAT
OTHER TOWNS
HIGHWAYS NUMBERED THUS CORRESPONDING
TO ROUTE NUMBERS SHOWN ON MAP
COUNTY LINES
HIGHWAYS IN GEORGIA AND NORTH CAROLINA — HARD SURFACE
OTHER ROADS IN GA. & N.C. — TYPE NOT SHOWN
AIRPORTS
STATE FOREST PARKS
HANGAR ACCOMODATIONS
MACON
GRAY
MILLEDGEVILLE
WARTHEN
SANDERSVILLE
LOUISVILLE
TENNILLE
WADLEY
IRWINTON
WRIGHTSVILLE
SWAINSBORO
MIDVILLE
WILCEN
SYLVANIA
NO CROSSING
BRAINSBORO
GRAYMONT SUMMIT
STATESBORO
METTER
LYONS
SOUTH THOMPSON
CLAXTON
PEMBROKE
SPRINGFIELD
GLENNVILLE
GLYDE
MIDWAY
SAVANNAH
MARTIN
ULMERS
APPLETON
ALLENDALE
SYCAMORE
FAIRFAX
BRUNSON
HAMPTON
VARNVILLE
ALMEDA
ESTILL
LENA
FURMAN
GRAYS
GILLISONVILLE
GARNETT
S.C.
GA.
TILLMAN
RIDGELAND
HARDEEVILLE
BLUFFTON
COLLETON
WALTERBORO
RUFFIN
MOAKS
LODGE
WILLIAMS
MICEY
RITTER
EARLY BRANCH
GREEN POND
YEMASSEE
POCOTALIGO
GARDENS CORNER
BEAUFORT
PORT ROYAL
PORT ROYAL SOUND
PHILLIPS IS.
WALLS
HILTON HEAD IS.
DAUFUSKIE IS.
TYBEE ROADS
TYBEE
THIS MAP NOT TO BE USE

Map of
SOUTH CAROLINA
STATE HIGHWAY SYSTEM

NOT TO BE USED FOR ADVERTISING

DRAWN BY CARL W. METZ

DEFENDANTS' EXHIBIT No. 8

Testimony of Mr. C. H. Moorefield, former Chief Engineer of the South Carolina Highway Department, in the form of a prepared statement.

(NOTE.—This statement was later repeated and added to by Mr. Moorefield as a part of his testimony before the Legislative Investigating Committee. See Exhibit No. 9 following.)

[fol. 320] "The Effect of Truck and Bus Traffic on the Cost of Highway Service in South Carolina."

February 4, 1931.

At the present time all work on the State Highway System of South Carolina is paid for out of receipts from motor vehicle license fees and gasoline taxes. This plan of finance is based on the theory that State Highways are built and maintained primarily for the use of the motor vehicle and that the benefits enjoyed by the owners and operators of motor vehicles because of the improved roads are at least equal in value to the service charges that the license fees and gasoline tax represent.

The discussions and arguments which led the law makers of the State to place the entire cost burden of State Highway improvement and maintenance on the automobile were generally confined to the question of whether any part of this burden should be borne by property taxes. When this question was once settled the schedule of license fees and the rate of gasoline tax were fixed with a view to raising the desired revenue and without much regard for equity in fixing the respective amounts to be paid by the different classes of vehicles. As the State's highway investment has increased the significance of the highway service in the transport of persons and commodities has kept pace, and the problem of properly recognizing differences in the cost to the State of furnishing highway service as between different classes of motor vehicles has grown in importance. Also, the State government is now concerned with the possibility of serious inequities that may have developed as between the highway service and other agencies that are engaged in transport, particularly because of the competitive situation now existing between the highways and the railroads.

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As I understand it, the Railroad Commission is now attempting to work out plans for regulating public highway carriers that will be fair and equitable to all of the interests affected by the service that these carriers afford, and [fol. 321] the purpose of this hearing is to develop information as to the effect that truck and bus traffic has on the cost of highway service with the idea that such information will be helpful in working out this plan.

From my point of view, it is not practicable to separate the trucks and buses operating as public carriers from those that are owned and operated over the highways for other purposes. It is possible, however, by more or less rational analysis to bring out certain significant comparisons between light vehicles and heavy vehicles, as well as between small vehicles and large vehicles, as the different classes affect highway cost.

The cost of the State's highway service may, perhaps, be discussed best by separating it into the three items of construction, maintenance, and traffic control, because each of these items is affected in a different way by providing for the heavier and larger vehicles.

Construction Costs.—It is apparent to anyone who has thought even casually of highway construction that the cost must vary with the character of the road and that the character of the road in turn must vary with the character and volume of the traffic to be served. It is immediately apparent that the presence of buses and large vehicles of all sorts on the highways calls for greater width and easier curves. It is equally apparent that the supporting power of the road and its structures must be sufficient to withstand the heaviest loads to which the road will be subjected.

If our highways could be designed for a maximum vehicle load of not exceeding four tons, which would take care of an ordinary two-ton truck loaded to its rated capacity, the average cost per mile of construction would, in my judgment, be reduced by at least $3,000.00 and probably more. If this $3,000.00 per mile additional cost is multiplied by the 6,000 miles included in the State Highway System, we have a minimum estimate of $18,000,000.00 in construction cost for which the trucks and buses of unusual weight and size are responsible.

[fol. 322] Now, as a matter of fact, the total number of trucks having more than two-tons capacity, together with

all the buses and lighter trucks carrying trailers, now operating in the State would not exceed about 3,000. This means that the State is expending $18,000,000. to accommodate 3,000 vehicles and combinations of vehicles. These 3,000 vehicles represent only a little more than 1% of the total number of vehicles using the State Highways, while the estimate of $3,000. per mile additional construction cost necessary in order to provide for these vehicles represents about 15% of the average per mile construction cost.

It could be shown in the same way, of course, that trucks of less than two-ton capacity, but heavier than the ordinary vehicles which constitute the great bulk of traffic on the highways, are also responsible for some additional cost, though the comparison already made illustrates the point that I have in mind.

Maintenance costs.—The effect of large or heavy vehicles on the maintenance cost is not so clearly apparent as in the case of construction cost, because if the roads are designed at the start to accommodate the heavy vehicles the damage caused by the passage of such vehicles over the roads is automatically brought within reasonable limits. On the other hand, any road will ultimately wear out and give way under repeated strains and the heavier vehicles unquestionably cause greater wear and greater strain than the lighter vehicles. Ordinarily we have no way of attributing accelerated wear at any particular point to any special kind or class of vehicle because the roads are open to all kinds and classes, but we do have sections of road where deterioration over a period of years is pronounced and other sections that have been under traffic for an equal number of years that show much less deterioration. It appears from such studies as we have been able to make that the rate of wear has been materially influenced by the character of the traffic as well as by the volume.

We have had a very good illustration of how the traffic of heavy vehicles may affect maintenance cost by observ- [fol. 323] ing the behavior of our bridge pavements on roads that have recently been paved. For example, in one case we had a bridge built in 1925, the floor of which was covered with a ½" bituminous surfacing. An average of about two hundred and twenty-five ordinary motor vehicles, including a small percentage of trucks, crossed this bridge

every day for two years, making a total for that period of about 160,000 vehicles, which perhaps, averaged two tons gross weight, or about 320,000 tons of traffic. In 1927 the road was closed to traffic and materials for about nine and one-half miles of pavement were hauled over this bridge. The hauling was done with trucks having a gross weight of about ten tons loaded and six tons empty. The aggregate gross weight hauled over the bridge by these trucks was about 50,000 tons.

The bridge surfacing, which had withstood two years of ordinary traffic, aggregating in the neighborhood of 320,000 tons, without damage, was practically destroyed by about 50,000 tons of heavy truck traffic.

Every paving contractor has observed how the earth type roads on which he hauls go to pieces under the traffic of his heavy trucks, but there is no way of making an exact comparison between the maintenance cost under ordinary traffic with the cost under the traffic of paving trucks, because weather conditions have a marked influence in each case.

In my judgment, the damage caused our roads by the heavy vehicles is in general out of proportion to the weight of the vehicles; that is, I believe that a five-ton truck will do more than five times the damage that a one-ton truck will do, and this belief is based on observation of and experience with the State Highway work in South Carolina. On the other hand, the five ton trucks pay less gasoline tax in proportion than the one-ton trucks because they consume less gasoline per ton mile hauled. According to the best information I have been able to get, the average gasoline consumed by trucks of one-ton capacity runs about ten miles to the gallon, while a five-ton truck goes on an aver- [fol. 324] age of about 4½ miles to the gallon. This means that the one-ton truck pays the same amount of gasoline tax for hauling ten-ton miles that the five-ton truck pays for hauling about 22½ ton miles.

Traffic Control.—The problem of controlling traffic on the highways and keeping accidents within bounds is one of the most serious responsibilities that the Highway Department has, and in spite of the utmost attention that we have been able to give this problem accidents have increased out of proportion to the increase in traffic. In 1929

we had 1,417 accidents reported by our maintenance organization with 213 fatalities resulting immediately; in 1930 the total number of accidents reported on State Highways was 1,833 with 215 fatalities. The increase in fatalities in this case was relatively very small, but the increase in the total number of accidents reported was very material, and this increase has gone on in spite of the fact that we have been constantly reducing road hazards by re-locating dangerous sections, eliminating railroad grade crossings, improving visibility, and erecting warning and guide signs. The heavy trucks and large trucks and buses appear to be involved in proportionately more accidents than the ordinary vehicles. In 1930, for example, there were 195 commercial buses registered and there were eighteen accidents reported in which these buses were involved. This means that the number of bus accidents reported was about 9.2% of the number of buses operating. The report shows, also, that 50% of the accidents reported involved other motor vehicles. In comparison with these figures there were 212,190 cars and light trucks registered and only 2,312 were involved in accidents, making the number of accidents a little more than 1% of the number of vehicles, and the number involving other cars was only about 26% of the total.

The accident comparison, of course, is not conclusive because of the wide discrepancy in the number of vehicles operating and the fact that the buses cover very much more mileage during the year than the ordinary vehicle would account at least in some measure for the much higher accident report. A similar comparison between accidents involving heavy trucks and those involving ordinary ve-
[fol. 325] hicles shows a much less pronounced load for the trucks. The number of trucks above the two-ton capacity figuring in accidents during 1930 was about 3½% of the number of such trucks in operation, but the accidents involving other vehicles was about 50% of the total. Regardless of what the comparison of accident statistics may show, I believe it is an uneques-ioned fact that large trucks and buses interfere to a marked extent with the free use of the highways by ordinary vehicles. Even on our 20 ft. pavements the average driver of an automobile hates to meet a bus or a large truck and is conscious of being crowded to one side whenever he passes one.

On the whole, my judgment is that the buses and large trucks enhance the problem of traffic control all out of proportion to the relative number of such vehicles using the highways.

General Comments.—With particular reference to the competitive situation as between highways and railroads, I have made no special study, but as a general proposition it looks to me as though the railroads should be able to at least compete in the cost of transport with the trucks and buses, provided that the latter are given no special highway advantage to which they are not entitled in equity. At the present time the motor vehicles are actually paying their way so far as the State Highway System is concerned, though the buses and trucks are not, in my judgment, paying anything like a fair proportion. Also, of course, the motor vehicles are paying no taxes on the State's tremendous investment in highways. When the Highway System is complete it will represent an outlay by the State of about $120,000,000.00. If the motor vehicles were paying taxes on a 42% valuation, as are the railroads, this would represent quite an additional charge against them. Furthermore, about 3,000 trucks, buses and trailers might in equity be required to pay the additional charges representing taxes on about $18,000,000.00 of the highway investment in order to put these trucks and buses on a comparable basis with the railroads so far as taxation is concerned.

It is unquestionably a fact that the buses and trucks have [fol. 326] an important place in our community life and I am in no way suggesting that they should be ruled off the highway; at the same time it does seem to me that they might be made to carry an equitable share of the highway cost burden; or if they are to be in effect subsidized by the State the amount of the subsidy should, in my judgment, be so regulated as not to give the trucks and buses any advantages over the railroads, which enjoy no such subsidy.

It is conceivable, of course, that the transport by bus and truck might completely replace the work of the railroads, in which case the present use of the highways by bus and truck would be multiplied a great many times and the present State Highway System would in all probability become wholly inadequate for this service. If all the freight now hauled by railroad had to be carried over our public road system general reconstruction would immediately become

the order of the day and the present investment of $120,000,000.—would be small compared to what would be required for handling such a situation. It seems, therefore, that the State should hesitate to continue subsidies that encourage the over-development of truck and bus transport because of the possibility that in the end the cost to the State on account of such encouragement would be completely beyond anything that is now anticipated.

DEFENDANTS' EXHIBIT No. 9

(Defendant's exhibit No. 9, is as follows:)

Testimony of State Highway Engineer

Before Commission to Investigate Motor Transportation in South Carolina, November 10, 1931

At the request of Chairman Robinson I am identifying and presenting the identical testimony presented by me before the Railroad Commission of South Carolina on February 4, 1931.

Chairman Robinson also requested that I come here today prepared as far as practicable to suggest a workable plan for correcting the apparent inequities pointed out in my [fol. 327] testimony before the Railroad Commission as contained in the present statutes.

At the present time, I feel thoroughly convinced that in the matter of license fees and gas tax paid in to the Highway Department the trucks and buses are not contributing in anything like the proportion that they influence the cost to the State of highway service. So far as I can see clearly, however, there is no rational way to determine just what any class of vehicles should pay for the privilege of using the roads. Apparently, there is no question but that the motor vehicles should pay the entire cost of the highways System and there is no question in my mind but that the State should properly derive some net revenue from its Highway System over and above the total cost of the service. Such a net revenue is actually now being derived, though it is being applied at present, and properly so in my judgment, to extending the Highway System.

It seems reasonable that the present charges against ordinary passenger motor vehicles may be taken as representing a proper amount for these vehicles to pay for the highway service. If this is done, then it is possible by rational process to arrive at approximately comparable rates for other classes of motor vehicles based on the relative cost to the State of furnishing highway service.

Following this line of approach to the problem, it is necessary, first, to establish an approximate comparison between the cost of furnishing highway service for ordinary passenger automobiles and the cost of the same service for the larger and heavier motor vehicles.

As nearly as I am able to estimate with the few data we have collected bearing on the subject and more or less lump sum judgment as a guide, the cost of constructing and maintaining the State Highway System and regulating traffic over it is probably at least 50% more as a result of making provision for trucks and buses than it would be if traffic [fol. 328] were restricted to ordinary passenger automobiles. That is to say, the cost of constructing, maintaining and policing a State Highway System identical in extent with our present System for the exclusive use of ordinary passenger automobiles would only amount to about two-thirds as much as we are now spending on the Highway System for the same purposes, but including adequate provision for trucks, buses and trailers.

According to the motor vehicle registration records of the Highway Department, there are now operating in the State approximately 179,000 ordinary passenger automobiles, 25,000 trucks and buses, and 2,000 trailers comparable in weight and size to the trucks. This means that about one-eighth of the total number of motor vehicles should contribute to the Highway Department's revenues about one-third of the total amount, and that the schedule of fees and taxes should be arranged accordingly.

Inasmuch as there appears to be no practicable way for regulating the payment of the gasoline tax except according to the quantity of gasoline consumed, and inasmuch as the consumption of gasoline does not actually vary directly with the weight or size of the motor vehicle using the road but is proportionately less as the weight increases, it appears necessary that the entire differential to be collected from the heavier and larger vehicles should, for convenience,

be reflected in the schedule of motor vehicle license fees. With that idea in mind, I recommend:

1. That the present schedule of fees so far as it relates to the ordinary passenger automobiles be continued in effect.

2. That the schedule of fees as it relates to trucks, buses and trailers be modified to conform with the following:

Proposed Schedule of Annual Motor Vehicle License Fees for Trucks, Buses and Trailers

1. Trucks, buses and trailers having a load capacity of not exceeding one ton:	
Width not exceeding 6 ft.	$25.00
Width more than 6 ft., but not exceeding 6 ft. 6 in.	75.00
Width more than 6 ft. 6 in. but not exceeding 7 feet	200.00
[fol. 329] Width more than 7 ft. but not exceeding 7 ft. 6 in.	$500.00
2. Trucks, buses and trailers having a load capacity of more than one ton but not more than two tons:	
Width not exceeding 6 ft. 6 in.	$75.00
Width more than 6 ft. 6 in., but not exceeding 7 ft.	200.00
Width more than 7 ft., but not exceeding 7 ft. 6 in.	500.00
3. Trucks, buses and trailers having a load capacity of more than two tons but not more than three tons:	
Width not exceeding 7 ft.	200.00
Width more than 7 ft., but not exceeding 7 ft. 6 in.	500.00
4. Trucks, buses and trailers having a load capacity of more than three tons but not more than four tons	500.00
5. Trucks, buses and trailers having a load capacity of more than four tons but not more than five tons	1,250.00

The above schedule contemplates actual loads hauled, exclusive of vehicle weight, and maximum width including

loads. It also contemplates that no vehicle should be registered for load capacity greater than five tons.

It is estimated that this proposed schedule would yield, after allowing for diminution in the use of trucks, buses and trailers, somewhere about 50% as much as is yielded by the motor vehicle license fees on ordinary passenger automobiles, but, perhaps, does not make full allowance for the relatively larger gasoline tax collected against the latter.

As to the question of appropriate fees or taxes to be levied against public carriers, including both buses and trucks, I am unable to offer any very definite suggestions, except that the special privilege of carrying on public service on the State Highways should be considered apart from the ordinary service charges represented by the motor vehicle license fees and gasoline taxes. In handling this particular feature of the problem, it appears to me that equity would indicate some consideration for the effect of this service on the railroads, which constitute a competing transport agency. To my mind, the State should by all means [fol. 330] avoid any undue encouragement of transport by motor vehicles where such encouragement might contribute seriously to the present dilemma of the railroads, unless it is very certain that the service to be performed by the motor vehicle carriers is absolutely needed in the interest of public convenience. What I mean to say is that any charge that the State may make against a public motor vehicle carrier for the privilege of using the highways should in reality be considered as secondary to the question of whether the carrier service is actually needed in the interest of public convenience and economy.

The highways of South Carolina are absolutely not in shape at present to bear all of the traffic that would come upon them if railroad operations were suspended generally and, furthermore, the increasing bus and truck traffic on the highways is unquestionably objectionable to the great majority of highway users who now travel in ordinary passenger automobiles. In my judgment, therefore, the State should hesitate at the present time to encourage even the most gradual substitution of highway carrier service for the railway service. Only can public highway carrier service be completely justified where it unquestionably supplements available railway service. On the other hand, there is no question but that the people of the State are

entitled to whatever real net advantage the motor vehicle can be made to afford them. They are entitled, in my judgment, to have their products collected by truck and their needs delivered in the same way, and they are also entitled to enjoy any real net saving incost of transportation that the truck can effect, but nobody is entitled to have the State government materially foster destructive competition for their benefit. For the State to set up highway facilities for trucks and buses to use in competition with the established railroads and not charge in full for the use of these facilities, would, in my judgment, be like felling a large tree in order that goats might eat their leaves.

In conclusion, I believe the State Highway System is [fol. 331] one of the most important developments now under way and that the State cannot afford delay in connecting and completing the highway work that it has undertaken. Ultimately the Highway System ought to be a great source of revenue for the State. Before any of this revenue is diverted to other purposes than the extension of the Highway System, the work should at least have reached the point where further extension will not serve to increase the net revenue. In other words, I see no reason why the State Highway System should not be regarded as a great public utility that ought properly be developed and adapted so as to yield the greatest possible net benefit to the people of the State. The production of public revenue through actual service rendered by the government would certainly be in the class of public benefits.

DEFENDANTS' EXHIBIT No. 10

(Defendant's exhibit 10, so offered and receive- in evidence, is a printed report of the Motor Transportation Investigating Committee, of South Carolina. The following statement of Mr. Charles H. Moorefield, State Highway Engineer, which will be found on pages 14 through 18 of said printed record, was read in evidence, and is as follows:)

"Mr. Charles H. Moorefield, State Highway Engineer:

At the request of Chairman Robinson he made a statement in his own way. He presented the identical testimony given by him to the Railroad Commission on February 4th.

In this statement he said that at the present all work on the State Highway System in South Carolina is paid for out of receipts from motor vehicle license fees and gasoline taxes. Theory was that the State Highways are built and maintained primarily for the use of motor vehicles. When it was decided that the burden should not be borne by property taxes a schedule of license fees and a rate of gasoline were fixed with a view to raising the desired revenue and without much regard for equity in fixing the respective amounts to be paid by different classes of [fol. 332] vehicles. The problem of recognizing properly differences in cost to state of furnishing highway service as between different classes of motor vehicles has grown in importance. "The State government is now concerned with the possibility of serious inequities that may have developed as between the highway service and other agencies that are engaged in transport, particularly because of the competitive situation now existing between highways and the railroads."

"From my point of view it is not practicable to separate the trucks and buses operating as public carriers from those that are owned and operated over the highways for other purposes."

"If our highways could be designed for a maximum vehicle load of not exceeding four tons, which would take care of an ordinary two-ton truck loaded to its rated capacity, the average cost per mile of construction would, in my judgment, be reduced by at least $3,000. and probably more. If this $3,000.00 per mile additional cost is multiplied by 6,000 miles included in the State Highway System, we have a minimum estimate of $18,000,000 in construction cost for which the trucks and buses of unusual weight and size are responsible.

"Now, as a matter of fact, the total number of trucks having more than two-ton capacity, together with all the buses and lighter trucks carrying trailers, now operating in the State would not exceed about 3,000. This means that the State is expending $18,000,000. to accommodate 3,000 vehicles and combination of vehicles. These 3,000 vehicles represent only a little more than 1% of the total number of vehicles using the State highways, while the estimate of $3,000. per mile additional construction cost necessary in order to provide for these vehicles represents about 15% of the average per mile construction cost."

He cited the example of a bridge built in 1925, over which had passed during the two next years about 160,000 vehicles, which perhaps averaged two tons gross weight, or about 320,000 tons of traffic. In 1927 the bridge was closed to traffic and materials for road building hauled over the bridge by trucks having a gross weight of ten tons [fol. 333] loaded and six tons empty. The bridge surfacing which had withstood two years of ordinary traffic, aggregating in the neighborhood of 320,000 tons without damage, was practically destroyed by about 50,000 tons of heavy truck traffic.

As to accidents, comparing commercial buses with private cars and light trucks, a total number of 212,190 with 2,312 accidents a little more than 1%. In 1930, with 195 commercial buses there were eighteen accidents on 9.2% of buses operated.

He had no study of the competitive situation between highways and railroads. "At the present time the motor vehicles are actually paying their way, so far as the State Highway System is concerned, though the buses and trucks are not, in my judgment, paying anything like a fair proportion. In his typewritten statement presented November 10th, he said:

"At the present time, I feel thoroughly convinced that in the matter of license fees and gas tax paid in to the Highway Department the trucks and buses are not contributing in anything like the proportion that they influence the cost to the State of highway service. So far as I can see clearly, however, there is no rational way to determine just what any class of vehicles should pay for the privilege of using the roads. Apparently there is no question but that the motor vehicles should pay the entire cost of the Highway System over and above the total cost of the service. Such a net revenue is actually now being derived, though it is being applied at present, and properly so, in my judgment, to extending the Highway System."

"As nearly as I am able to estimate with the few data we have collected bearing on the subject and more or less lump sum judgment as a guide the cost of constructing and maintaining the State highway system and regulating traffic over it is probably at least 50% more as a result of making provision for trucks and busses than it would be

if traffic were restricted to ordinary passenger automobiles. * * *

"According to the motor vehicle registration records of the Highway Department, there are now operating in the State approximately 179,000 ordinary passenger automo-
[fol. 334] biles, 25,000 trucks and buses and 2,000 trailers comparable in weight and size to the trucks. This means that about one-eighth of the total number of motor vehicles should contribute to the Highway Department's revenues about one-third of the total amount, and that the schedule of fees and taxes should be arranged accordingly.

He recommends the following schedule of motor vehicle license fees:

1. Trucks, buses and trailers having a load capacity of not exceeding one ton:	
Width not exceeding 6 ft.	$25.00
Width more than 6 ft. but not exceeding 6 ft. 6 in.	75.00
Width more than 6 ft. 6 in. but not measuring 7 ft.	200.00
Width more than 7 ft. but not exceeding 7 ft. 6 in.	500.00
2. Trucks, buses and trailers having a load capacity of more than one ton but not more than two tons:	
Width not exceeding 6 ft. 6 inches	$75.00
Width more than 6 ft. 6 in. but not exceeding 7 ft.	200.00
Width more than 7 ft. but not exceeding 7 ft. 6 in.	500.00
3. Trucks, buses and trailers having a load capacity of more than two tons but not more than three tons:	
Width not exceeding 7 ft.	200.00
Width more than 7 ft. but not exceeding 7 ft. 6 inches	500.00
4. Trucks, buses and trailers having a load capacity of more than three tons but not more than four tons	500.00
5. Trucks, buses and trailers having a load capacity of more than four tons but not more than five tons	1,250.00

"The above schedule contemplates actual loads hauled, exclusive of vehicle weight, and maximum width including loads. It also contemplates that no vehicle should be registered for load capacity greater than five tons."

He was unable to offer very definite suggestions as to appropriate fees or taxes to be levied against public carriers, including both bus- and trucks "except that the spe- [fol. 335] cial privilege of carrying on public service on the state highways should be considered apart from the ordinary service charges represented by the motor vehicle license fees and gasoline taxes. * * * To my mind the State should by all means avoid any undue encouragement that might contribute seriously to the present dilemma of the railroads unless it is very certain that the service to be performed by the motor vehicle carriers is absolutely needed in the interest of public convenience. I see no reason why the State Highway System should not be regarded as a great public utility, that ought to be properly developed and adapted so as to yield the greatest possible net benefit to the people of the State. The production of public revenue through actual service rendered by the government would certainly be in the class of public benefits."

In rely to questions Mr. Moorefield said that in northern latitudes they could not use the same light roads that could be used here and that the heavier trucks did increase the wear on such roads as were constructed here. That the Federal Government, while it did make contribution to several types of road—sand, clay and others—in this State, at this time the whole federal contribution could be absorbed in the highest type concrete roads in this State. He believed that unless this State built roads that interstate travel could use, federal appropriations would not come to this State. He thought it vital to this State to protect its own roads and he saw no reason why it should ask the Federal Government by congressional legislation to do this. He did not think it desirable to allow the residents of Georgia and North Carolina any privileges that were not allowed the citizens of this State. He thought residents of South Carolina should have the preference. Mr. Moorefield felt that it was necessary to control the common carrier more carefully than the individual user of the highways, but that the scale of fees recommended by him should

apply to all trucks and then some additional tax to the common carrier, the additional tax to cover the cost of regulation and proper control. "To foster the development of the common motor truck carrier means that probably [fol. 336] we are going to take on the burden of freight transport; that we are going to gradually assume the burden of freight transport for the highway that is now being handled by the railways, and that certainly the State should go slow in encouraging that burden on the highways. That is the point of view that I meant to occupy in expressing that opinion." "All that I know is that the roads are not in condition, and no prospect for them to be in condition, to assume the burden of railroad traffic and the freight traffic."

He said there were 53,000 miles of road in the State and approximately 6000 under the State Highway system. The gasoline tax of one cent went to the counties and five cents to the State highways. There were 2400 miles paved or in process of being paved; 900 miles of bituminous surface or in process of being bituminous surfaced, the balance of 6000 miles, sand and clay roads. Federal statute provides not exceeding 7% of total mileage in the State as eligible for inclusion in the Federal aid system; 7% of 53,000 miles, or 3700 miles would be subject to Federal aid. He had no doubt but that the General Assembly had the right to regulate all highway traffic, interstate or other, according to speed and weight in a reasonable way. If trucks or buses operated in other states and South Carolina should interpose objections to their use of her roads there would be strong evidence of unreasonableness. Mr. Moorefield stated that there were now approximately 179,000 ordinary passenger automobiles licensed in the State, 25,000 trucks and buses. Many citizens did not own cars. That to undermine the railroad service would, in his judgment, cripple the poor man. Mr. Moorefield said that he recommended that whoever operated heavy large vehicles over the roads be charged the same, whether he be private carrier, common carrier, or contract carrier. Mr. Moorefield pointed out that his schedule increased the license fee on the one-ton truck only $10,000 a year, but that on the big truck, which [fol. 337] was a menace to the road the increase was greater. He thought probably there would be an outcry against his schedule but he believed it to be right.

In answer to questions he said that it had been recommended to the Legislature to limit the length of trucks on the road to 33 ft. but that the Legislature had increased it to 50."

[fol. 338] PLAINTIFFS' EXHIBIT No. 11

United States Department of Agriculture, Bureau of Public Roads

Mileage of Approved Federal Aid Highway System as of September 30, 1935

State	Mileage
Alabama	4,146
Arizona	2,011
Arkansas	5,318
California	6,110
Colorado	3,798
Connecticut	1,109
Delaware	766
Florida	2,627
Georgia	5,905
Idaho	3,396
Illinois	8,266
Indiana	5,215
Iowa	7,987
Kansas	8,702
Kentucky	3,843
Louisiana	2,892
Maine	1,674
Maryland	2,206
Massachusetts	1,993
Michigan	6,350
Minnesota	7,506
Mississippi	3,841
Missouri	7,805
Montana	5,816
Nebraska	5,755
Nevada	1,782
New Hampshire	1,049
New Jersey	1,526
New Mexico	3,700
New York	8,915

Plaintiff' Exhibit No. 11—Continued

State	Mileage
North Carolina	6,249
North Dakota	7,242
Ohio	6,973
Oklahoma	8,129
Oregon	3,941
Pennsylvania	7,518
Rhode Island	521
South Carolina	4,322
South Dakota	8,596
Tennessee	4,832
Texas	13,218
Utah	1,842
Vermont	1,099
Virginia	4,474
Washington	3,547
West Virginia	2,354
Wisconsin	5,988
Wyoming	3,590
Hawaii	532
District of Columbia	73
Total	227,049

[fol. 339] DEFENDANTS' EXHIBIT No. 13

(Defendant's exhibit 13, so offered and received in evidence is in words and figures as follows:)

Motor Vehicle Division
Truck Registrations and Receipts
1933 to 1936

		Registrations			
	Class	1933	1934	1935	1936
H	Not over 1 ton	8,857	10,046	12,576	14,243
I	1 ton solid	6	9	8	11
J	1 to 2 tons	8,252	9,917	12,507	13,578
K	2 tons solid	64	50	33	26
L	2 to 3 tons	522	764	1,580	2,306
M	3 tons solid	13	11	6	5
N	3 to 4 tons	74	70	175	309
O	4 ton solid	4	2	1	0
P	4 to 5 tons	3	8	12	19
Q	5 ton solid	0	0	0	0
	Totals	17,795	20,877	26,898	30,497

[fol. 340] DEFENDANTS' EXHIBIT No. 14

(Defendant's exhibit 14, so offered and received in evidence is in words and figures as follows:)

Table Number 8-3
Motor Vehicle Licenses

Year	Auto's	Trucks	Trailers	Motor-cycles	Dealers
1925	153,978	15,409	817	173	535
1926	163,368	17,599	1,006	270	519
1927	178,995	18,580	1,368	255	508
1928	194,267	22,538	1,637	432	658
1929	205,683	25,591	2,048	451	628
1930	195,405	26,261	2,111	559	595
1931	180,100	23,439	1,110	492	537
1932	157,680	19,567	2,041	487	476
1933	145,644	17,795	1,764	444	469
1934	182,052	20,877	1,919	560	522
1935	206,158	26,841	2,655	641	604
1936	218,690	30,492	3,091	617	598

[fol. 341] DEFENDANT'S EXHIBIT No. 16

		No. of Vehicles	Trucks				Trailers			
			1½	2	3	4 Total	1½	2	3	4 Total
	A.A.A. Highway Express, Atlanta, Ga.	2	1			1	1			1
X	E. T. & W. N. C. Motor Transportation, Johnston City, Tenn.	4	2			2	2			2
	Ft. Sumter Navigation Tours, Mt. Pleasant, S. C.	1	1			1				
X1	Georgilina Motor Express, Savannah, Ga. (Two vehicles Extras)—1½ tons	10	4			4		4		4
	Inland Waterways Transp. Co., Georgetown, S. C. (One vehicle Extra)—1½ tons	2	1			1				
	Long Motor Lines, Greenwood, S. C.	1	1							
	Milk Transport Co., Denmark, S. C.	1	1			1				
X2	Miller Motor Express, Charlotte, N. C. (Tour vehicles Extras)—2-1½, 2-2	14	4		1	5		4	1	5
	R. L. Murray, St. George, S. C.	2	1			1	1			1
Z3	New South Express Lines, Columbia, S. C. (24 vehicles Extras)—20-1½, 2-2, 4-3	52	11	9		20	2	2	4	8
	Nilson Motor Express, Walterboro, S. C.	4	2			2	2			2
X	Poole Transportation Co., Greenville, S. C.	6		3		3		3		3
	Jerry T. Riley, Ridgeville, S. C.	1	1			1				
X	Southeastern Express Co., Atlanta, Ga.	3	1	1		2		1		1
X	The Transportation, Inc., Greenville, S. C. (One vehicle extra—1½)	8		6		6		1		1
		111	31	19	1	.. 50	8	15	5	.. 28

X Interstate only.
Z1 4 trucks—2 trailers Interstate only.
Z2 3 trucks—3 trailers Interstate only.
Z3 2 trucks—2 trailers Interstate only.

[fol. 342] IN UNITED STATES DISTRICT COURT

APPENDIX TO STATEMENT OF EVIDENCE

Act V

Uniform Act Regulating Traffic on Highways

This Act is part of Uniform Vehicle Code Consisting of:

I. "Uniform Motor Vehicle Administration, Registration Certificate of Title and Antitheft Act"

II. "Uniform Motor Vehicle Operators' and Chauffeurs' License Act"

III. "Uniform Motor Vehicle Civil Liability Act"

IV. "Uniform Motor Vehicle Safety Responsibility Act"

V. "Uniform Act Regulating Traffic on Highways"

As revised and approved by the Fourth National Conference on Street and Highway Safety, May 23-25, 1934.

U. S. Department of Agriculture, Bureau of Public Roads

United States Government Printing Office, Washington: 1934

[fol. 343] Published Under Authority Contained in The Federal Highway Act (42 Stat. 212), Approved November 9, 1921

Foreword

This act is one of five acts which constitute the uniform vehicle code as revised and recommended for State enactment as the foundation for uniform traffic regulation.

The uniform vehicle code was originally prepared in 1925-26 by the National Conference on Street and Highway Safety in cooperation with the National Conference of Commissioners on Uniform State Laws. It was reviewed and revised by the National Conference on Street and Highway Safety in 1930 and again this year. In each case the revisions were based upon thorough study by a representative committee, extending over a period of months, of the provisions of the various acts in the light of experience and changed conditions.

The changes in substance in the present code from the 1930 draft are few. The speed restrictions have been rewritten to make them simpler and more easily understood. The lighting provisions for motor vehicles have been revised in recognition of recent mechanical developments. Changes have been made in the sections dealing with sizes and weights of motor vehicles. There has been incorporated provision for periodic inspection of motor vehicles.

The first two acts of the 1930 draft covering respectively vehicle registration and certificate of title, have been consolidated and amplified to provide for a highway patrol and new administrative features. Two new acts have been added, dealing respectively with civil liability and safety responsibility. Former acts III and IV, covering respectively drivers' licenses and regulation of traffic on highways, have been renumbered acts II and V. In all of the acts long sections have been broken up into shorter sections for clarity.

[fol. 344] The National Conference on Street and Highway Safety, as heretofore, recommends two other sets of standards to supplement the uniform vehicle code—a model municipal traffic ordinance for municipalities and a Manual on Uniform Traffic Control Devices—the latter now covering conditions both in rural areas and in cities.

The importance of uniform legislative standards in reducing accidents and facilitating the movement of traffic cannot be overestimated, and the adoption of these standards by all States and municipalities is earnestly recommended.

Daniel C. Roper, Secretary of Commerce, Chairman, National Conference on Street and Highway Safety.

Washington, D. C., July 31, 1934.

NOTE.—The following associations have cooperated with the Department of Commerce in conducting the Conference: Bureau of Public Roads, U. S. Department of Agriculture; American Association of Motor Vehicle Administrators; American Automobile Association; American Mutual Alliance; American Railway Association; American Transit Association; Chamber of Commerce of the United States; National Automobile Chamber of Commerce; National Bureau of Casualty and Surety Underwriters; and National

Safety Council. The Automobile Club of Southern California has made substantial contributions to the staff work of the uniform vehicle code and model municipal traffic ordinance.

Sec. 145. Wheel and axle loads.[10]—(a) The gross weight upon any wheel of a vehicle shall not exceed the following:

1. When the wheel is equipped with a high pressure pneumatic, solid rubber or cushion tire, 8,000 pounds.

2. When the wheel is equipped with a low pressure pneumatic tire, 9,000 pounds.

(b) The gross weight upon any one axle of a vehicle shall not exceed the following:

[fol. 345] 1. When the wheels attached to said axle are equipped with high-pressure pneumatic, solid rubber or cushion tires, 16,000 pounds.

2. When the wheels attached to said axle are equipped with low-pressure pneumatic tires, 18,000 pounds.

(c) For the purpose of this section an axle load shall be defined as the total load on all wheels whose centers are included within two parallel transverse vertical planes not more than 40 inches apart.

(d) For the purposes of this section every pneumatic tire designed for use and used when inflated with air to less than 100 pounds pressure shall be deemed a low-pressure pneumatic tire and every pneumatic tire inflated to 100 pounds pressure or more shall be deemed a high-pressure pneumatic tire.

The American Association of State Highway Officials recommends the limitations stated for vehicles operated on all main rural and inter-city roads but suggests that heavier axle loads might be permitted upon vehicles operating in metropolitan areas if any city so desires. Also, The American Association of State Highway Officials recommends that the State highway department be authorized to restrict wheel and axle weights for reasonable periods where road subgrades are materially weakened by thawing after deep frost or from a continued saturated condition of the soil.

[fol. 346] S. A. E. Transport Code Committee Makes Report for Study by Members

Load and Dimension Limitations on Motor Vehicles Developed by S. A. E. Automotive Transport Code Committee

The following recommendations are based on practical engineering requirements for the design and operation of motor trucks and their combination of units.

1. Width

The maximum body width shall be 96 in. The maximum width over dual pneumatic tires measured on a line through the center of the hub, parallel to the ground, shall be 102 in.

Weights:

(a) Definitions of Thoroughfares—

(1) Streets—Thoroughfares within municipalities and immediately contiguous metropolitan districts.

(2) Highways—Main arterial routes between cities and towns and connecting industrial areas.

(3) Roads—all others.

(b) Weight Limitations—The minimum (or least) maximum axle weight limitations in pounds, in lieu of limitations in gross weight and inch width of tires, shall be

	Streets (1)	Highways (2)	Roads (3)
High pressure pneumatics	22,500	18,000	16,000
Balloon Type Tires	22,500	20,000	18,000
Solid Tires (See note 1)	22,500	Not allowed	Not allowed

[fol. 347] Who Shall Use the Highways and How

Published by The American Association of State Highway Officials

General Offices, 1222-24 National Press Building, Washington, D. C.

Wheel Loads vs. Gross Loads

Those who would elim-ate any competition in transportation by prohibiting even properly adjusted regulations in

the weights of vehicles on the highways, declare that it will take hundreds of millions of dollars to build the present system up to the standard to meet the requirements of this Association's recommendations, basing their statement on the false premise that the gross weights that would be permitted could not be borne by existing highways.

Highway stresses are ruled by wheel loads and not by gross loads. Those who really seek the protection of the highways should help to impress that fact indelibly upon the minds of legislators and law enforcement officers. For, it so happens, that the wheel load is not only the more [fol. 348] critical factor but is also the more easily determinable factor. To measure gross loads, stationary platform scales are a practical necessity; and, unless they are placed and actually operated on at least all important roads, the gross load limitation, whatever it may be, will be a virtual deadletter. The wheel load limitation is, on the other hand, easily enforceable by officers, equipped with small, portable scales who, appearing suddenly, first on one road, then on another, may plant their telltale instrument by the roadside and require any driver to run his heaviest wheel on it, and so, quickly and practically, detect the law violators. And of this at least there can be no question: That for the protection of the roads an enforced wheel load limitation is immeasurably better than an unenforceable gross load limitation.

It has been shown in this article that the wheel loads proposed by the Highway Officials exceed those now legally prescribed in only three States. This fact alone should allay any reasonable fear that adoption of the Association's weight suggestions would loose upon the highways a destroying caravan of excessively heavy vehicles.

Gross Weight, Dimensions and Speed for Vehicles Recommended for Adoption

It is the opinion of the Association of State Highway Officials that the adoption of a uniform standard to govern gross weight, dimensions, and speeds for motor vehicles operating on the highways is a fundamental necessity for the following reasons:

(a) To establish one of the fundamental prerequisites of highway design.

(b) To promote efficiency in the interstate operation of the motor vehicle.

(c) To secure safety in highway operation.

(d) To remove from the highways undesirable equipment and operations.

(e) To stabilize on a definite basis the many relationships between the highway and the motor vehicle.

[fol. 349] These conclusions have been reached after many years of consideration on the part of the Highway Transport Committee of the Association, supplemented by painstaking research by a number of the State Highway Departments and the Bureau of Public Roads.

The Association therefore makes the following recommendations to the proper State authorities having control of traffic on the highways:

(1) Width

Width of a Vehicle—No vehicle shall exceed a total outside width, including and load thereon, of 8 feet, except vehicles now in operation which, by reason of the substitution of pneumatic tires for other types of tires, exceed the above limit.

(5) Axle Load

(a) The wheels of all vehicles, including trailers, except those operated at 10 miles per hour or less, shall be equipped with pneumatic tires.

(b) No wheel equipped with high pressure, pneumatic, solid rubber or *chusion* tires shall carry a load in excess of 8,000 pounds, or any axle load in excess of 16,000 pounds.

Research indicates that low-pressure pneumatic tires can carry 9,000 pounds per wheel without increasing pavement slab stresses.

An axle load shall be defined as the total load on all wheels whose centers may be included between two parallel transverse vertical planes 40 inches apart.

(c) These limitations are recommended for all main rural and inter-city roads, but should not be construed as inhibiting heavier axle loads in metropolitan areas if any State desires.

(d) These weight specifications for wheel and axle loads may be restricted by the State Highway Department for a reasonable period where road subgrades are materially weakened from thawing after deep frost, or from a continued saturated condition of the soil.

[fol. 350] Excerpt from the Testimony of Thomas H. MacDonald, Chief of the Bureau of Public Roads, Before the Interstate Commerce Commission, Dec. 5, 1931, Docket No. 23400

Chairman Brainerd: If pneumatic tires are used, what would be the maximum load that could safely be carried on the improved highways in which the Government has aided?

A. We believe that the maximum wheel load should be limited to about 9,000 pounds; gross loads heavier than that would make a 9000 wheel load. We believe if it is desired to move heavier loads the number of wheels should be increased containing the 9,000 pound concentration, so that if you want to go above that then we should place instead of four wheels six wheels or an increasing number of axles, so that we will not obtain more than 18,000 pounds per axle. The roads that we are building today will stand 18,000 pound axle load on pneumatic tires.

I do not *want* whether I make that point quite clear. Our tests show that in the application of wheel loads to the road, if the wheel rests as much as 36 to 40 inches apart, if the point of contact of one wheel is 46 inches ahead of the next wheel, there is no overlap of stresses in the road structure. In other words the road has to carry only the weight of each particular wheel. The stresses did not pile up. Therefore, if we had a load to move on the roads that would take more than 18,000 pounds on the rear axle it should be solved by placing two 18,000 rear axles with four wheels in place of two wheels. Do I make that clear?

Q. This morning, in your testimony, about highways carrying vehicles with an axle load of 9,000 pounds——

A. A wheel load.

Q. May I ask if you were referring to an 8-7-8 concrete highway or in substance that?

A. I think the table shows that that would be safe for that particular load, but in this case 7½ edged thickness, with 6½ center thickness, would carry such a load with an extreme fibre stress of 358 pounds, just right at the maximum

working stress we would sue of 350 pounds, but that does not necessarily mean, if I may explain, that we would use [fol. 351] just these dimensions. There are other factors which enter, depending largely upon climatic or soil conditions or the interrelationship of those two. In the south, for example, where we have an absence of frost action and good sub-grades to support, we would approve a cross-sectional design for the same loads much lighter than we would in the northern states. Take in South Carolina, we are building roads even lighter than 8 6 8; that is, we have actually gone to about this point of 7½ edge thickness, but we could not use that same design in the northern states.

[fol. 352]

Calendar No. 146

Senate

67th Congress, 1st Session

Report No. 134

Continuation of Federal Aid in the Construction of Highways

June 20, 1921.—Ordered to be Printed

Mr. Townsend, from the Committee on Post Offices and Post Roads, submitted the following:

Report (to accompany S. 1355)

The Committee on Post Offices and Post Roads, to whom was referred the bill (S. 1355) to provide for the establishment, construction, and maintenance of a post roads and interstate highway system, to create a Federal highway commission, and for other purposes, report it back with amendments, and as thus amended recommend its passage.

In view of the very general interest in the subject and the fact that the Committee on Post Offices and Post Roads has held hearings and given serious thought and consideration to the subject over a period of several years, the committee feels justified in presenting a general review of its labors and an analysis of the bill here presented together with a statement of the essential differences from the law passed in 1916 as amended in 1919.

A new era in transportation confronts the United States. An evolution of far-reaching social, political, and industrial

importance has been effected through the constantly grow-
[fol. 353] ing use of highway transport. The modern motor vehicle has rendered obsolete old methods of highway construction, maintenance, and administration. The question is no longer local alone in application; it is national. Obviously our highway policies must be broadened and straightened to meet this changed condition if public expenditures are to be conserved and the best interests of the Nation cared for. Living costs can be reduced, and our defense strengthened, and a new spirit of nationalism created if we use intelligently this new means of communication between communities and States.

President Harding in his first message to Congress, delivered Tuesday, April 12, 1921, recommended the strengthening of laws governing Federal aid for road construction. In the course of his message he made the significant statement that the principle of Federal aid had been "acceptably established, probably never to be abandoned." The President's recommendation concerning highway development is given below:

Transportation over the highways is little less important (referring to the railways), but the problems relate to construction and development, and deserve your most earnest attention, because we are laying a foundation for a long time to come, and the creation is very difficult to visualize in its great possibilities.

The highways are not only feeders to the railroads and afford relief from their local burdens, they are actually lines of motor traffic in interstate commerce. They are the smaller arteries of the larger portion of our commerce, and the motor car has become an indispensable instrument in our political, social, and industrial life.

There is begun a new era in highway construction the outlay for which runs far into hundreds of millions of dollars. Bond issues by road districts, counties, and States [fol. 354] amount to enormous figures, and the country is facing such an outlay that it is vital that every effort shall be directed against wasted effort and unjustifiable expenditure.

The Federal Government can place no inhibition on the expenditure in the several States; but, since Congress has embarked upon a policy of assisting the States in highway

improvement, wisely, I believe, it can assert a wholly becoming influence in shaping policy.

With the principle of Federal participation acceptably established, probably never to be abandoned, it is important to exert Federal influence in developing comprehensive plans looking to the promotion of commerce and apply our expenditures in the surest way to guarantee a public return for money expended.

The need for a national policy that will develop a connected and correlating system of public highways that will adequately serve the requirements of the whole country and reduce the costs of transportation between producer and consumer, a system that will supplement our great railroad and water transportation, is apparent to every student of this question.

[fol. 355] IN UNITED STATES DISTRICT COURT

[Title omitted]

PETITION FOR APPEAL—Filed February 25, 1937

To the Honorable John J. Parker, United States Circuit Judge, Honorable Elliott Northcott, United States Circuit Judge, and Honorable J. Lyles Glenn, United States District Judge, composing a District Court for the Eastern District of South Carolina, pursuant to section 266, as amended, of the Judicial Code of the United States (Title 28, United States Code, section 380):

Your petitioners, defendants in the above entitled cause, South Carolina State Highway Department; South Carolina Public Service Commission; Joseph N. Poulnot, individually, and as Sheriff of Charleston County, and as representative of all such officers; George Bell Timmerman, individually, and as Chairman of the State Highway Commission of South Carolina, and as representative thereof; Ben M. Sawyer, individually, and as Chief Highway Commissioner of South Carolina; Alfred W. Bohlen, individually, and as Director of the Motor Vehicle Division of the State Highway Department of South Carolina, and as representative of said department; S. Eakin Wilson, individually, and as State Inspector for the State Highway

Department of South Carolina for Charleston County, and as representative of all like officers in South Carolina; Tee Hutto, individually, and as Patrolman for the State Highway Department of South Carolina in Charleston County, and as representative of all like officers in South Carolina; James W. Wolfe, individually, and as Chairman of the [fol. 356] South Carolina Public Service Commission, and as representative thereof; William W. Goodman, individually, and as Superintendent of the Motor Transportation Division of the South Carolina Public Service Commission, and as representative thereof; Benjamin K. Sanders, individually, and as State Inspector for the South Carolina Public Service Commission for Charleston County, and as representative of all like officers in South Carolina; Harold Fox, individually, and as Magistrate's Constable in Charleston County, and as representative of all like officers in South Carolina; Christian H. Ortmann, individually, and as Chief of Police for the City of Charleston, South Carolina, and as representative of all municipal police officers in the State of South Carolina; Atlantic Coast Line Railway Company; Legh R. Powell, Jr., and Henry W. Anderson, as Receivers of Seaboard Air Line Railway Company, and Charleston & Western Carolina Railway Company, respectfully show:

Your petitioners, defendants in the above entitled cause, considering themselves aggrieved by the final decree of said United States District Court for the Eastern District of South Carolina, entered in this cause on January 20, 1937, pray and appeal to the Supreme Court of the United States from said decree.

The errors for which your petitioners claim to be entitled to the appeal herein prayed for are more fully set out in the assignment of errors filed with the Clerk of this Court pursuant to Rule 9 of the Rules of the Supreme Court of the United States; and there has been likewise filed herewith the statement required by Rule 12 of said Rules disclosing the basis for the jurisdiction of the Supreme Court of the United States to review said order or decree.

Wherefore, in order that your petitioners may obtain relief in the premises and have an opportunity to show the errors complained of, your petitioners pray for an allowance of an appeal in this cause to the Supreme Court of the United States pursuant to the statutes and rules of said Court; that a true copy of the material parts of the record

[fol. 357] herein, including the assignment of errors, shall be made and transmitted to said Court in the manner and form prescribed by Rule 10 of the Rules of said Court, and that such further order or orders be made as may appear to this Court necessary or proper for the allowance of the appeal herein prayed.

February 22, 1937.

John M. Daniel, Attorney General of South Carolina; J. Ivey Humphrey, Assistant Attorney General of South Carolina; M. J. Hough, Assistant Attorney General of South Carolina; Eugene S. Blease, Steve C. Griffith, Solicitors for Original Defendants. Thomas W. Davis, Douglas McKay, Attorneys for Atlantic Coast Line Railroad Company; M. G. McDonald, Attorney for C. & W. C. Ry. Co.; J. B. S. Lyles, Attorney for Legh R. Powell, Jr., and Henry W. Anderson, as Receivers of Seaboard Air Line Railway Company, Solicitors for Intervening Defendants.

[fol. 358] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER ALLOWING APPEAL—Filed February 25, 1937

The petition of the defendants in the above entitled cause for an appeal to the Supreme Court of the United States from the decree of the District Court of the United States for the Eastern District of South Carolina having been filed herein, accompanied by an assignment of errors and statement as to jurisdiction, all as required by Rules 9 and 12 of the Rules of the Supreme Court of the United States, and the said papers having been presented to this Court, and the record in this case having been considered:

It is hereby Ordered that an appeal be, and it is hereby, allowed to the Supreme Court of the United States from the final decree of the District Court of the United States for the Eastern District of South Carolina, entered in this cause on the 20th day of January, 1937, and that the Clerk of this Court shall, within forty days from this date, make and transmit to the Supreme Court of the United States, under

his hand and the seal of this Court, a true copy of the material parts of the record herein, which shall be designated by præcipe or a stipulation of the parties or their counsel herein, all in accordance with Rule 10 of the Rules of the Supreme Court of the United States.

It is further Ordered that the appellants shall give a good [fol. 359] and sufficient cost bond in the sum of Two Hundred Fifty Dollars ($250), conditioned as required by law.

Done by this Court, this 23rd day of February, 1937.

J. Lyles Glenn, United States District Judge for the Eastern District of South Carolina.

[fols. 360-362] Bond on appeal for $500, approved and filed February 25, 1937, omitted in printing.

[fol. 363] In United States District Court

[Title omitted]

Præcipe for Record—Filed February 25, 1937

To the Clerk of the United States District Court for the Eastern District of South Carolina:

Counsel for defendants, appellants in above cause, request you to prepare and transmit, under your hand and the seal of the Court, to the Supreme Court of the United States, with reference to the appeal in this cause to said Court, a transcript of the record in this cause, as required by law and by the Rules of the said Court, and to include in said transcript of the record true copies of the following:

1. Bill of Complaint, filed August 11, 1936, omitting Subpœna.
2. Defendants' Motion to Dismiss, filed September 19, 1936.
3. Memorandum Opinion of District Judge upon Motion to Dismiss, filed October 24, 1936.
4. Order Granting Defendants' Motion to Dismiss as to certain paragraphs of Complaint, filed November 2, 1936.
5. Order Overruling Defendants' Motion to Dismiss as to Paragraph 9 of Bill of Complaint, filed November 2, 1936.

6. Plaintiffs' Motion for Temporary Injunction, filed November 2, 1936.

[fol. 364] 7. Order Permitting the filing of Motion for Temporary Injunction, filed November 2, 1936.

8. Memorandum Opinion on Motion for Temporary Injunction, filed November 2, 1936.

9. Temporary Restraining Order, filed November 2, 1936.

10. Answer, filed November 7, 1936.

11. Order Convening Statutory Three Judge Court, filed November 13, 1936.

12. Petition of Interstate Commerce Commission to Intervene as a Plaintiff, filed November 17, 1936.

13. Defendants' Motion to Dismiss Complaint, filed November 24, 1936.

14. Petition of Receivers of Seaboard Air Line Railway to Intervene as Defendants, filed November 24, 1936.

15. Petition of Atlantic Coast Line Railroad Company and Charleston and Western Carolina Railway Company to Intervene as Defendants, filed November 25, 1936.

16. Order Permitting Interstate Commerce Commission to Intervene, filed November 30, 1936.

17. Petition of Marlboro Produce Association to Intervene as a Plaintiff, filed December 1, 1936.

18. Petition of A. J. Mattheson, Inc., to Intervene as Plaintiff, filed December 1, 1936.

19. Order Permitting Receivers of Seaboard Air Line Railway, Atlantic Coast Line Railroad Company, and Charleston and Western Carolina Railway Company to Intervene and Adopt Defendants' Answer, filed December 2, 1936.

20. Order Allowing Marlooro Produce Association and A. J. Mattheson, Inc., to Intervene and Adopt Plaintiffs' Complaint, filed December 3, 1936.

[fol. 365] 21. Opinion of Statutory Three Judge Court, with Findings of Fact and Conclusions of Law, filed January 20, 1937.

22. Decree of Statutory Three Judge Court, filed January 20, 1937.

23. Order Extending Time to Defendants, filed January 20, 1937.

24. Order Extending Time to Defendants, filed February 13, 1937.

25. Petition for Appeal of Defendants.

26. Assignments of Error and Prayer for Reversal.
27. Statement as to Jurisdiction upon Appeal under Rule 12 of Supreme Court of the United States.
28. Order Allowing Appeal.
29. Citation and Service thereof.
30. Statement of the Evidence and Proceedings before the Court, together with Plaintiffs' Exhibits Nos. 3 and 4, and Defendants' Exhibits Nos. 7, 8, 9, 13, 14, and 16, and so much of Defendants' Exhibit No. 10 as is included in the list of exhibits attached to the Statement of Evidence.
31. Cost Bond on Appeal.
32. Praecipe for Transcript of Record.
33. Clerk's Certificate of Transcript of Record.
34. Notice Pursuant to Equity Rule 75.

Thomas W. Davis, Douglas McKay, Solicitors for Atlantic Coast Line Railroad Company, Intervenor; M. G. McDonald, Solicitor for Charleston & Western Carolina Railway Company, Intervenor; J. B. S. Lyles, Solicitor for L. R. Powell, Jr., and Henry W. Anderson, as Receivers of Seaboard Air Line Railway Company, Intervenors; John M. Daniel, Attorney General of South Carolina; J. Ivey Humphrey, Assistant Attorney General of South Carolina; M. J. Hough, Assistant Attorney General of South Carolina; Eugene S. Blease, Steve C. Griffith, Solicitors for all Original Defendants.

Dated February 23, 1937.

[fol. 366] IN UNITED STATES DISTRICT COURT

APPELLEES' PRÆCIPE FOR RECORD ON APPEAL—Filed March 6, 1937

To the Clerk of the United States District Court for the Eastern District of South Carolina:

Counsel for plaintiffs, appellees in the above cause, request you to include in the Transcript of the Record heretofore requested by the appellants in the above cause by

Præcipe dated February 23, 1937, true copies of the following:

1. That portion of plaintiffs' Exhibit 1, entitled "Apportionment of Federal Aid funds to various states for years 1917 to 1937, inclusive" showing apportionment of Federal Aid funds for South Carolina for each year and the total for the United States as a whole for the entire period.

2. Plaintiffs' Exhibits Nos. 2, 5 and 6.

3. Those portions, shown and copied in attached sheets properly marked for identification, of documents as exhibited at the trial of the cause (original copies of which documents in full are also attached hereto) entitled as follows:

(a) "Act V Uniform Act Regulating Traffic on Highways" prepared and adopted by the National Conference on Street and Highway Safety as published by the Bureau of Public Roads of the Department of Agriculture, 1934.

(b) "Recommendations of the American Society of Automotive Engineers on gross weight and dimensions of motor vehicles adopted in 1933."

(c) "Who Shall Use the Highways and How" published by the American Association of State Highway Officials 1932.

[fol. 367] (d) "Testimony of Thomas H. McDonald, Chief of the Bureau of Public Roads before the Interstate Commerce Commission, December 5, 1931, Docket No. 23,400."

(e) "Report of the Committee on Post Offices and Post Roads to the 67th Congress on June 20, 1921 entitled "Continuation of Federal Aid in the Construction of Highways"."

Respectfully, S. King Funkhouser, J. Ninian Beall, Frank Coleman, Martin P. Burks, III, Solicitors for all Original Plaintiffs.

March 4, 1937.

[fol. 368] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER SETTLING TESTIMONY AND RECORD ON APPEAL—Filed March 10, 1937.

This matter comes before me for the settlement of various minor differences between the parties concerning the evidence to constitute a part of the record on appeal, and particularly as to the inclusion of various matters in this record. All of the original plaintiffs-appellees are represented by S. King Funkhouser, Esq., and Frank Coleman, Esq., and all of the defendants-appellants by Steve C. Griffith, Esq., and J. B. S. Lyles, Esq.

I conclude and order as follows:

As to the Exhibits: Plaintiffs' Exhibits numbered two, three, four and eleven, and defendants' Exhibits numbered eight, nine, ten, thirteen, fourteen and sixteen are to be included in the list of exhibits appended to the statement of evidence and printed as a part thereof, in the form, as to all such Exhibits, that the same have now been attached to the original statement of the evidence, as agreed to by the parties. Plaintiffs' Exhibits numbered five and six, and defendants' Exhibit numbered seven are maps, which are to be attached to the record as exhibits, forty copies of each thereof to be furnished the Clerk as required.

[fol. 369] As to the third section of appellees' præcipe for record on appeal—appellees ask that portions of certain documents exhibited at the trial of the case, and concerning which the Court took judicial notice, be printed as an appendix to the evidence. The portions desired to be so included by appellees have been typewritten and attached to their original præcipe, the original printed copies of the documents being filed therewith. In the circumstances, I find that the request of appellees in this respect is reasonable, and the same is granted. Such portions so desired to be printed by appellees have been, by agreement of counsel, actually attached as an appendix to the statement of evidence, and the Clerk will certify them in that form.

As to the statement of evidence filed by appellants pursuant to Equity Rule 75, I find that the same is true, complete and properly prepared. A substantial portion of the testimony has been reproduced in the exact words of the witnesses but I find it is not reasonably possible to sum-

marize this testimony or otherwise to convey the true and exact meaning of the witnesses. Hence, this meets with my approval and I approve the statement of the evidence as now filed, which includes such changes as the parties have made in the original statement by agreement, and direct that the same shall constitute a part of the record for appeal.

J. Lyles Glenn, United States District Judge for the Eastern District of South Carolina.

March 10, 1937.

[fol. 370] IN UNITED STATES DISTRICT COURT

[Title omitted]

NOTICE PURSUANT TO EQUITY RULE 75—Filed February 25, 1937

To S. King Funkhouser, J. Ninian Beall, Frank Coleman, L. Mendel Rivers, Thomas M. Ross, Edward M. Reidy, Daniel W. Knowlton, S. S. Tison, Esquires, Solictors for Plaintiffs-Appellees:

You will please take notice that the defendants-appellants have lodged their statement of the evidence and proceedings before the Court with the Clerk of the District Court of the United States for the Eastern District of South Carolina, at Charleston, South Carolina, a copy of the same being hereby served upon you, pursuant to Equity Rule 75, and will move the Honorable J. Lyles Glenn, United States District Judge for the Eastern District of South Carolina, to approve the same, at his Chambers in the Federal Court Room in the City of Columbia, South Carolina, on the 10th day of March, 1937, at ten o'clock in the forenoon, or as soon thereafter as counsel can be heard.

Steve C. Griffith, Thomas W. Davis, Douglas McKay, M. G. McDonald, J. B. S. Lyles, Solicitors for Defendants-Appellants. John M. Daniel, Attorney General of South Carolina; J. Ivey Humphrey, Assistant Attorney General of South Carolina; M. J. Hough, Assistant Attorney General of South Carolina; Eugene S. Blease, of Counsel.

February 23, 1937

[fols. 371-379] Clerk's certificate to foregoing transcript omitted in printing.

[fol. 380] Citation in usual form omitted in printing.

[fol. 381] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER EXTENDING TIME TO FILE RECORD—Filed May 4, 1937

On motion of Steve C. Griffith, Esq., Solicitor for all the original defendants-appellants, and J. B. S. Lyles, Esq., Solicitor for all intervening defendants-appellants, and upon due consideration, good cause having been shown therefor;

It is ordered That the time within which appellants may docket this case and file the record thereof on the appeal with the Clerk of the Supreme Court of the United States be and the same is hereby enlarged and extended until and including the twenty-third day of June, 1937, this constituting an enlargement of forty days of the time now current, which would otherwise expire on the fourteenth day of May, 1937.

J. Lyles Glenn, United States District Judge for the Eastern District of South Carolina.

Columbia, S. C., May 4th, 1937.

[fols. 382-384] Order extending time to file record to May 14, 1937, and notices omitted in printing.

[fol. 385] IN THE SUPREME COURT OF THE UNITED STATES

[Title omitted]

POINTS RELIED ON AND PARTS OF RECORD NECESSARY FOR CONSIDERATION THEREOF—Filed June 22, 1937

Come Now the Appellants and adopt their assignments of error as their statement of the points to be relied upon and represent that the following portions of the record filed in this cause are necessary for consideration of the points relied upon by the Appellants, and that the following, constituting the transcript of the record, should be printed by the Clerk:

1. Bill of Complaint, filed August 11, 1936, omitting subpœna.

2. Defendants' Motion to Dismiss, filed September 19, 1936.

3. Memorandum Opinion of District Judge Upon Motion to Dismiss, filed October 24, 1936.

4. Order Granting Defendants' Motion to Dismiss as to certain paragraphs of Complaint, filed November 2, 1936.

5. Order Overruling Defendants' Motion to Dismiss as to Paragraph 9 of Bill of Complaint, filed November 2, 1936.

6. Plaintiffs' Motion for Temporary Injunction, filed November 2, 1936.

7. Order Permitting the filing of Motion for Temporary Injunction, filed November 2, 1936.

8. Memorandum Opinion on Motion for Temporary Injunction, Filed November 2, 1936.

9. Temporary Restraining Order, filed November 2, 1936.

10. Answer, filed November 7, 1936.

11. Order Convening Statutory Three Judge Court, filed November 13, 1936.

[fol. 386] 12. Defendants' Motion to Dismiss Complaint, filed November 24, 1936.

13. Order Permitting Interstate Commerce Commission to Intervene, filed November 30, 1936.

14. Order Permitting Receivers of Seaboard Air Line Railway Company, Atlantic Coast Line Railroad Company, and Charleston and Western Carolina Railway Company to Intervene and Adopt Defendants' Answer, filed December 2, 1936.

15. Order Allowing Marlboro Produce Association and A. J. Mattheson, Inc., to Intervene and Adopt Plaintiffs' Complaint, filed December 3, 1936.

16. Opinion of Statutory Three Judge Court, with Findings of Fact and Conclusions of Law, filed January 20, 1937.

17. Decree of Statutory Three Judge Court, filed January 20, 1937.

18. Order Extending Time to Defendants, filed January 20, 1937.

19. Order Extending Time to Defendants, filed February 13, 1937.

20. Petition for Appeal of Defendants.

21. Assignments of Error and Prayer for Reversal.

22. Statement as to Jurisdiction upon Appeal under Rule 12 of Supreme Court of the United States.

23. Order Allowing Appeal.

24. Citation and Service thereof.

25. Statement of the Evidence and Proceedings before the Court, together with Plaintiffs' Exhibits Nos. 3 and 4, and Defendants' Exhibits Nos. 7, 8, 9, 13, 14 and 16, and so much of Defendants' Exhibit No. 10 as is included in the list of exhibits attached to the Statement of Evidence.

26. Cost Bond on Appeal.

27. Præcipe for Transcript of Record.

28. Order Settling Testimony and Record on Appeal, [fol. 387] signed by Judge Glenn, dated March 10, 1937.

29. Order Extending Time to Docket Case to May 14, 1937, taken under Rule 11 of the Supreme Court, signed by Judge Glenn, dated March 12, 1937.

30. Acknowledgments of Service of Order Settling Testimony and Record on Appeal, signed by Judge Glenn, dated March 10, 1937, and Order Extending Time to Docket Case to May 14, 1937, taken under Rule 11 of the Supreme Court, signed by Judge Glenn, dated March 12, 1937.

31. Order Enlarging Time to Docket Case to June 23, 1937, taken under Rule 11 of the Supreme Court.

32. Acknowledgments of Service of Order Enlarging Time to Docket Case to June 23, 1937, taken under Rule 11 of the Supreme Court.

33. Clerk's Certificate of Transcript of Record.

34. Notice Pursuant to Equity Rule 75.

35. Points Relied on and Parts of Record Necessary for consideration thereof.

Thomas W. Davis, Douglas McKay, Solicitors for Atlantic Coast Line Railroad Company, Intervenor. M. G. McDonald, Solicitor for Charleston & Western Carolina Railway Company, Intervenor. J. B. S. Lyles, Solicitor for L. R. Powell, Jr., and Henry W. Anderson, as Receivers of Seaboard Air Line Railway Company, Intervenors. John M. Daniel, Attorney General of South Carolina; J. Ivey Humphrey, Assistant Attorney General of South Carolina; M. J. Hough, Assistant Attorney General of South Carolina; Eugene S. Blease, Steve C. Griffith, Solicitors for all Original Defendants.

Dated June 4, 1937.

[fol. 388] I acknowledge receipt of copy of Points Relied on and Parts of Record Necessary for Consideration Thereof in the above entitled cause.

This 7 day of June, 1937.

E. M. Reidy, Attorney for Appellee, Interstate Com-
[fol. 389] merce Commission. J. Ninian Beall, At-
[fol. 390] torney for Appellee, Barnwell Bros., Inc. Tison & Miller, Attorneys for Marlboro Produce Association and A. J. Mattheson, Inc., Ap-
[fol. 391] pellees. S. King Funkhouser, Attorney for Appellees.

[fol. 392] IN THE SUPREME COURT OF THE UNITED STATES

[Title omitted]

DESIGNATION BY APPELLEES OF ADDITIONAL MATERIAL PARTS OF RECORD—Filed June 29, 1937

Come Now the Appellees and request that the following additional parts of the record filed in this cause and necessary for the consideration of this case on appeal, should be printed by the clerk:

1. That portion of plaintiffs' Exhibit 1, entitled "Apportionment of Federal Aid funds to various states for years 1917 to 1937, inclusive" showing apportionment of Federal Aid funds for South Carolina for each year and the total for the United States as a whole for the entire period.

2. Plaintiffs' Exhibits Nos. 2, 5, and 6.

3. Those portions of documents as exhibited in the trial of the case, shown and copied in sheets attached to appellees' praecipe, and properly marked for identification (original copies of which documents in full are also attached to appellees' praecipe) entitled as follows:

(a) "Act V uniform Act Regulating Traffic on Highways" prepared and adopted by the National Conference on Street and Highway Safety as published by the Bureau of Public Roads of the Department of Agriculture, 1934.

(b) "Recommendations of the American Society of Automotive Engineers on gross weight and dimensions of motor vehicles adopted in 1933."

[fol. 393] (c) "Who Shall Use the Highways and How" published by the American Association of State Highway Officials 1932.

(d) "Testimony of Thomas H. McDonald, Chief of the Bureau of Public Roads before the Interstate Commerce Commission, December 5, 1931, Oocket No. 23,400."

(e) "Report of the Committee on Post Offices and Post Roads to the 67th Congress on June 20, 1921 entitled 'Continuation of Federal Aid in the Construction of Highways'."

4. Petition of Interstate Commerce Commission to Intervene as a Plaintiff, filed November 17, 1936.

5. Petition of Receivers of Seaboard Air Line Railway to Intervene as Defendants, filed November 24, 1936.

6. Petition of Atlantic Coast Line Railroad Company and Charleston and Western Carolina Railway Company to Intervene as Defendants, filed November 25, 1936.

7. Petition of Marlboro Produce Association to Intervene as a Plaintiff, filed December 1, 1936.

8. Petition of A. J. Mattheson, Inc., to Intervene as Plaintiff, filed December 1, 1936.

9. Appellees' Counter Request entitled "Additional Material Parts of Record."

Respectfully submitted, S. King Funkhouser, J. Ninian Beall, Frank Coleman, Martin P. Burks, III, Solicitors for all Original Plaintiffs.

June 19. 1937.

[fol. 394] The undersigned hereby accepts service and acknowledges receipt of a copy of Appellees' counter-request entitled Additional Material Parts of Record, dated June 19th, 1937.

Executed this 21st day of June, 1937.

J. B. S. Lyles, Attorney for Intervening Appellants.

[fol. 395] Steve C. Griffith Attorney for Appellants.

[fol. 396] Thos. W. Davis Attorney for Appellants.

[fol. 397] IN THE SUPREME COURT OF THE UNITED STATES

[Title omitted]

STIPULATION AND ADDITION TO RECORD—Filed July 13, 1937

It appearing to Counsel of record:

That at the trial of this cause the Appellees introduced in evidence, as their Exhibits 5 and 6, two maps, one marked "The Federal Aid Highway System—Progress Map, Corrected to May 1, 1936", a publication of the Department of Agriculture, Bureau of Public Roads (2 sheets), and one marked "United States System of Highways—Adopted for Uniform Marking by the American Association of State Highway Officials, November 11, 1936, corrected to July 1, 1935", a publication of the Department of Agriculture, Bureau of Public Roads (1 sheet);

That these two exhibits were included in the Appellees præcipe directed to the Clerk of the District Court;

That by the decree of the District Court dated —— —, ——, settling the record for appeal, it was ordered that the Clerk of said Court certify said Exhibits 5 and 6 along with other portions of the record in the cause and that the parties hereto furnish the said Clerk with 40 copies of each of said exhibits;

That 40 copies of said exhibits were accordingly furnished said Clerk, but;

That the said Clerk failed to certify copies of said exhibits to the Supreme Court of the United States along with other portions of the record, although 40 copies of said exhibits accompanied the certified record to the Supreme Court of the United States;

[fol. 398] That in their statement of Additional Material Parts of Record filed with the Clerk of the Supreme Court of the United States, Appellees requested that said Exhibits 5 and 6 be printed along with other portions of the record, but;

That the Clerk of the Supreme Court of the United States is unable to comply with this direction since he has no certified copy of either of said exhibits.

Now, Therefore, in consideration of the foregoing it is agreed and stipulated between the undersigned counsel of record in this cause that the necessity for procedure to

establish a dimunition of the record shall be and it is hereby waived, and the undersigned counsel of record do hereby request the Clerk of the District Court for the Eastern District of South Carolina to certify one copy of each of said exhibits, plaintiffs' exhibits Nos. 5 and 6, to the Clerk of the Supreme Court of the United States in order that the record in this cause may be complete.

Thos. W. Davis, J. B. S. Lyles, Solicitor- for all Intervening Defendants. S. King Funkhouser, Solicitor for all Original Plaintiffs-Appellees. Thomas M. Ross, Solicitor for Interstate Commerce Commission. Tison & Miller, Solicitors for Marlboro Produce Assn. and A. J. Matheson, Inc. John M. Daniel, Attorney General; J. Ivey Humphrey, Assistant Attorney General; M. J. Hough, Assistant Attorney General; Eugene S. Blease, Steve C. Griffith, Solicitors for all Original Defendants.

[fol. 398½] IN THE DISTRICT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF SOUTH CAROLINA

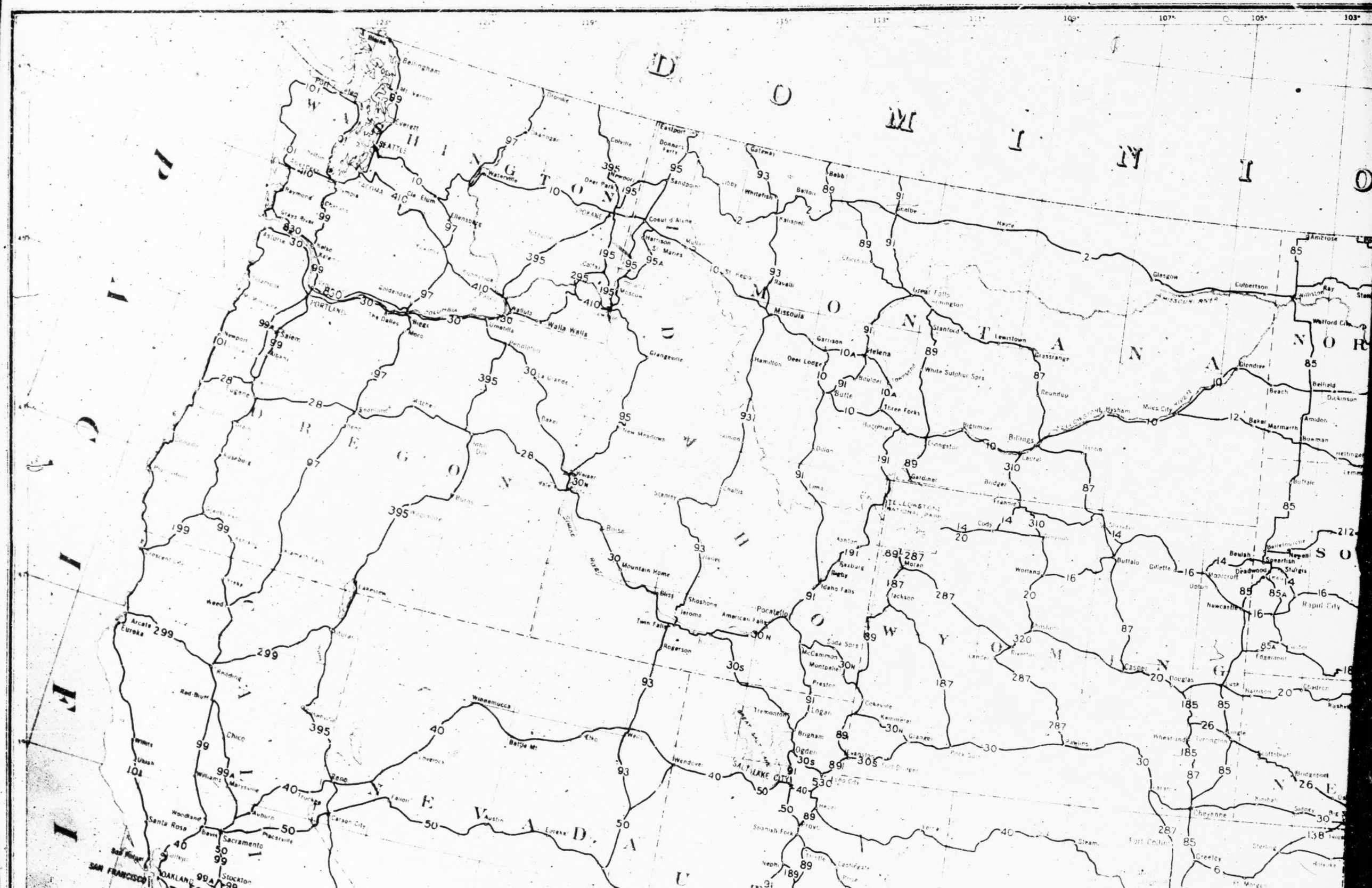
CERTIFICATE

I, Richard W. Hutson, Clerk of the Court aforesaid, do certify that the maps hereto attached are true copies of the original Exhibits 5 and 6 in the case of Barnwell Brothers, Inc., et al., Complainants, vs. South Carolina Highway Department et al., Defendants, the said Exhibits 5 and 6 being put in evidence by and on behalf of Complainants, which original Exhibits 5 and 6 are now on file and of record in the Clerk's office of said Court.

Witness my official signature and seal of office at Charleston, S. C., the 7th day of July, 1937.

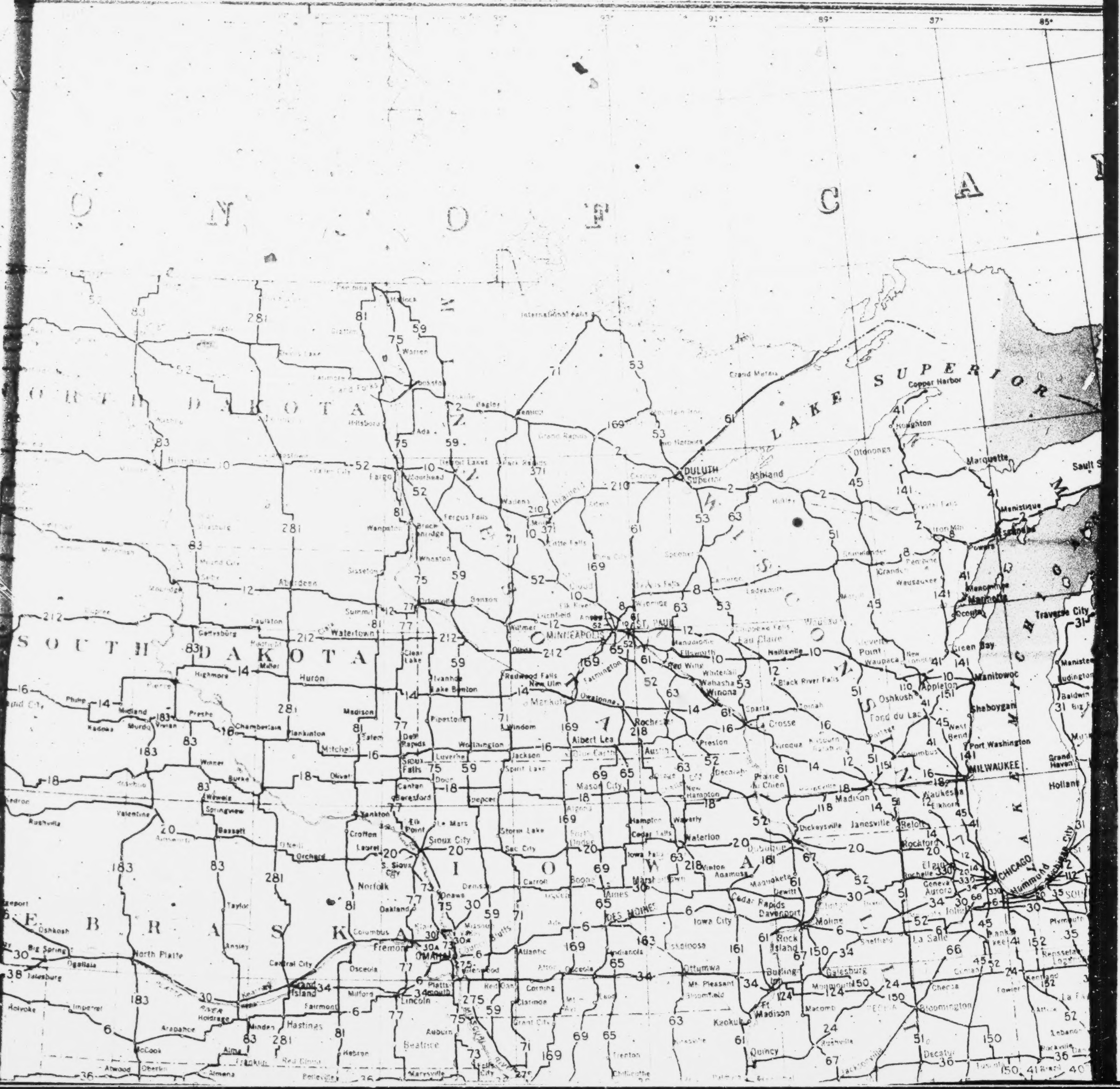
Richard W. Hutson, C., D. C. U. S., E. D. S. C. (Seal United States District Court, Eastern District, So. Ca.)

(Here follow 2 Maps, Exhibits 5 and 6, side folios 399 and 400)


WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
UTAH
COLORADO
SEATTLE
PORTLAND
SPOKANE
SALT LAKE CITY
SAN FRANCISCO
OAKLAND
Sacramento
Reno
Boise
Billings
Great Falls
Missoula
Helena
Butte
Bozman
Cheyenne
Rapid City
Minot
Glasgow
Havre
Williston
Dickinson
Bismarck
Fargo
Grand Forks
Watford City
Glendive
Miles City
Lewistown
Casper
Laramie
Rock Springs
Pocatello
Idaho Falls
Twin Falls
Ogden
Provo
Logan
Wenatchee
Yakima
Walla Walla
Pendleton
Lewiston
Coeur d Alene
Kalispell
Whitefish
Libby
Sandpoint
Colville
Omak
Wenatchee
Ellensburg
Aberdeen
Olympia
Bellingham
Everett
Tacoma
Vancouver
Longview
Kelso
Astoria
Salem
Eugene
Roseburg
Medford
Klamath Falls
Lakeview
Burns
Ontario
La Grande
Baker
Grangeville
Lewiston
Orofino
Salmon
Challis
Stanley
Mountain Home
Burley
Rexburg
Jackson
Moran
Afton
Evanston
Kemmerer
Cokeville
Montpelier
Soda Springs
Preston
Tremonton
Brigham
Wendover
Battle Mt
Winnemucca
Elko
Ely
Austin
Eureka
Tonopah
Hawthorne
Fallon
Carson City
Truckee
Auburn
Placerville
Stockton
Modesto
Merced
Fresno
Bakersfield
Visalia
Hanford
Coalinga
Salinas
Monterey
Santa Cruz
San Jose
Santa Rosa
Ukiah
Willits
Fort Bragg
Eureka
Arcata
Crescent City
Weed
Redding
Red Bluff
Chico
Oroville
Marysville
Woodland
Davis
Vallejo
Richmond
Berkeley
San Rafael
Petaluma
Napa
Sonoma
Mt Vernon
Port Angeles
Port Townsend
Shelton
Raymond
Chehalis
Centralia
Kelso
Longview
Kalama
Castle Rock
Stevenson
White Salmon
Hood River
The Dalles
Biggs
Moro
Condon
Arlington
Heppner
Ione
Boardman
Hermiston
Umatilla
Pasco
Kennewick
Prosser
Sunnyside
Toppenish
Goldendale
Ellensburg
Cle Elum
Leavenworth
Wenatchee
Chelan
Omak
Oroville
Tonasket
Republic
Colville
Chewelah
Newport
Priest River
Sandpoint
Bonners Ferry
Libby
Troy
Eureka
Whitefish
Kalispell
Columbia Falls
West Glacier
Polson
Ronan
Plains
Thompson Falls
Superior
Alberton
Missoula
Hamilton
Darby
Stevensville
Florence
Lolo
Deer Lodge
Anaconda
Philipsburg
Drummond
Garrison
Boulder
Whitehall
Three Forks
Manhattan
Belgrade
Livingston
Gardiner
Big Timber
Columbus
Laurel
Billings
Hardin
Crow Agency
Lodge Grass
Wolf Point
Culbertson
Scobey
Plentywood
Froid
Poplar
Fort Peck
Jordan
Winnett
Roundup
Harlowton
Lewistown
Stanford
Great Falls
Conrad
Shelby
Cut Bank
Browning
Chester
Havre
Malta
Glasgow

303 US 177 U.S. Sup. Ct. Records, Briefs 1937
S. C. Hwy. Dept. v. Barnwell Bros. No. 161

In Evidence, Compl'ts'
Richard W. Hutson, C., D. C. U.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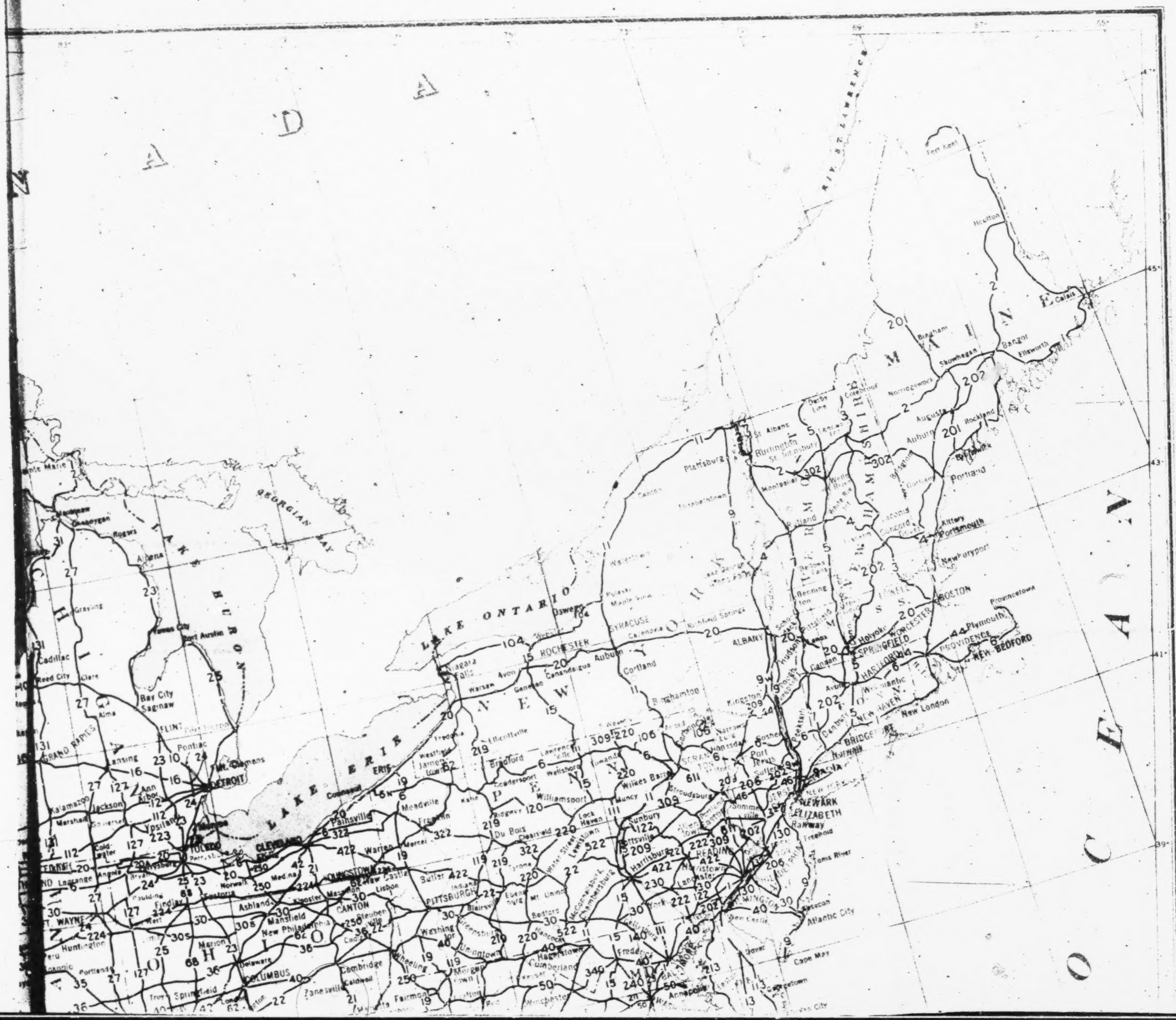
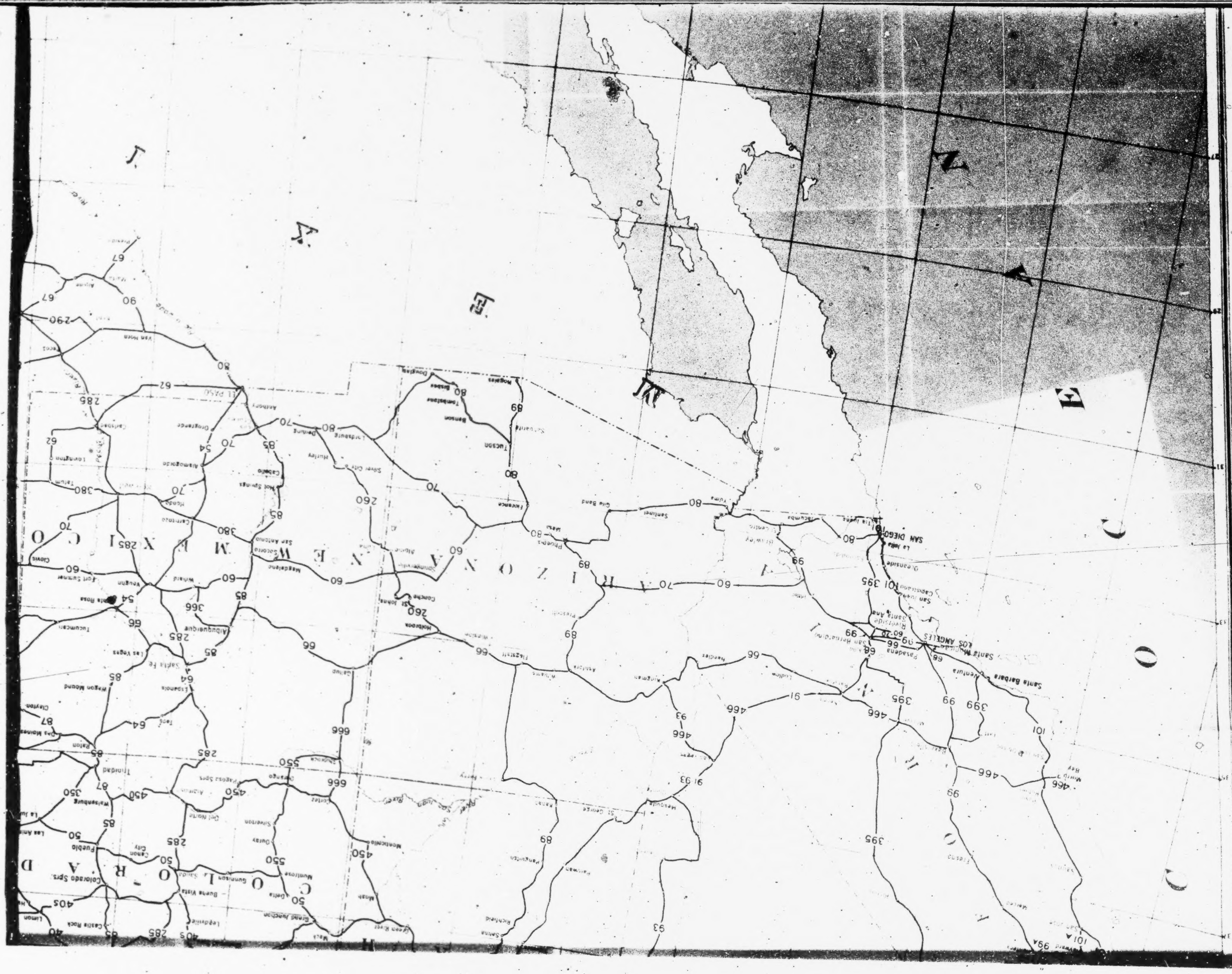
SOUTH DAKOTA
NEBRASKA
IOWA
LAKE SUPERIOR
MICHIGAN
DULUTH
MINNEAPOLIS
ST. PAUL
MILWAUKEE
CHICAGO
Grand Forks
Fargo
Moorhead
Minot
Bismarck
Aberdeen
Watertown
Huron
Sioux Falls
Yankton
Sioux City
Norfolk
Fremont
Omaha
Lincoln
Grand Island
North Platte
Hastings
Kearney
Rapid City
Pierre
Mitchell
Brookings
Mankato
Rochester
Albert Lea
Austin
Mason City
Fort Dodge
Waterloo
Cedar Rapids
Davenport
Iowa City
Des Moines
Ottumwa
Burlington
Keokuk
Quincy
Rock Island
Moline
Galesburg
Peoria
Bloomington
Decatur
Springfield
Champaign
Danville
Rockford
Janesville
Madison
Green Bay
Appleton
Oshkosh
Fond du Lac
Manitowoc
Sheboygan
Milwaukee
Racine
Kenosha
Waukegan
Joliet
Aurora
Elgin
Gary
Hammond
Michigan City
La Porte
South Bend
Elkhart
Fort Wayne
Kalamazoo
Battle Creek
Jackson
Ann Arbor
Detroit
Flint
Saginaw
Bay City
Grand Rapids
Muskegon
Traverse City
Petoskey
Mackinaw City
Sault Ste. Marie
Marquette
Escanaba
Iron Mountain
Menominee
Manistique
Houghton
Hancock
Copper Harbor
Ironwood
Ashland
Superior
Wausau
Stevens Point
Wisconsin Rapids
La Crosse
Eau Claire
Rice Lake
Hayward
Duluth
International Falls
Grand Marais
Thief River Falls
Crookston
Bemidji
Brainerd
Detroit Lakes
Fergus Falls
Wadena
Little Falls
Willmar
Redwood Falls
New Ulm
Worthington
Luverne
Pipestone
Canton
Beresford
Watertown
Clear Lake
Ivanhoe
Lake Benton
Madison
Dell Rapids
Sioux Falls
Mitchell
Chamberlain
Pierre
Rapid City
Sturgis
Belle Fourche
Lemmon
Mobridge
Aberdeen
Sisseton
Wahpeton
Jamestown
Valley City
Wahpeton
Devils Lake
Rugby
Minot
Williston
Dickinson
Bismarck
Mandan
Hettinger
Lemmon
Gettysburg
Faulkton
Miller
Highmore
Pierre
Kadoka
Philip
Midland
Wall
Rapid City
Custer
Hot Springs
Edgemont
Newcastle
Sundance
Lusk
Douglas
Casper
Riverton
Lander
Rawlins
Laramie
Cheyenne
Scottsbluff
Alliance
Chadron
Crawford
Harrison
Gordon
Valentine
Ainsworth
Bassett
Springview
Wood Lake
Rushville
Gordon
Hay Springs
Chadron
Crawford
Harrison
Gordon
Alliance
Scottsbluff
Bridgeport
Oshkosh
Big Spring
Ogallala
Julesburg
Sidney
Kimball
Chappell
Lodgepole
Sidney
Cheyenne
Pine Bluffs
Torrington
Wheatland
Laramie
Rawlins
Rock Springs
Green River
Evanston
Kemmerer
Afton
Jackson
Pinedale
Dubois
Lander
Riverton
Thermopolis
Worland
Basin
Greybull
Cody
Powell
Lovell
Sheridan
Buffalo
Gillette
Newcastle
Hot Springs
Edgemont
Custer
Hill City
Keystone
Rapid City
Wall
Philip
Kadoka
Murdo
Presho
Chamberlain
Winner
Burke
Gregory
Winner
Wood
Mission
Valentine

EXHIBIT No. 5
E. D. S. C. 12/1/36




Albuquerque
Amarillo
Austin
Brownsville
Corpus Christi
Dallas
El Paso
Fort Worth
Houston
Lubbock
Midland
Oklahoma City
San Antonio
Tucson
Yuma
Phoenix
Los Angeles
San Diego
Las Vegas
Denver
Colorado Springs
Pueblo
Albuquerque
Santa Fe
Roswell
Carlsbad
Las Cruces
Alamogordo
Tucumcari
Clovis
Hobbs
Lubbock
Abilene
Sweetwater
Wichita Falls
Childress
Amarillo
Dalhart
Pampa
Borger
Big Spring
Midland
Odessa
Pecos
Fort Stockton
Del Rio
Eagle Pass
Laredo
Kingsville
Corpus Christi
Victoria
Brownsville
McAllen
Harlingen
Corpus Christi
Alice
Beeville
Victoria
Port Lavaca
Galveston
Houston
Beaumont
Port Arthur
Lake Charles
Lafayette
New Orleans
Baton Rouge
Shreveport
Texarkana
Tyler
Longview
Marshall
Jefferson
Paris
Sherman
Denison
Ardmore
Durant
Hugo
Idabel
Broken Bow
McAlester
Muskogee
Tahlequah
Fort Smith
Russellville
Hot Springs
Little Rock
Pine Bluff
Monticello
Greenville
Clarksdale
Vicksburg
Jackson
Meridian
Laurel
Hattiesburg
McComb
Natchez
Tallulah
Monroe
Alexandria
Natchitoches
Many
Leesville
Lake Charles
Jennings
Abbeville
New Iberia
Houma
Morgan City
Thibodaux
Gulfport
Biloxi
Pascagoula
Mobile
Pensacola
Fort Walton Beach
Panama City
Tallahassee
Valdosta
Albany
Dothan
Eufaula
Montgomery
Selma
Tuscaloosa
Birmingham
Anniston
Gadsden
Florence
Huntsville
Decatur
Cullman
Jasper
Fayetteville
Springdale
Rogers
Bentonville
Harrison
Mountain Home
Batesville
Jonesboro
Blytheville
Paragould
Poplar Bluff
Cape Girardeau
Sikeston
Kennett
Dyersburg
Union City
Jackson
Humboldt
Brownsville
Somerville
Bolivar
Corinth
Tupelo
Columbus
Starkville
Greenwood
Grenada
Yazoo City
Vicksburg
Natchez
Brookhaven
McComb
Hammond
Slidell
Bogalusa
Covington
Hammond
Baton Rouge
Plaquemine
Donaldsonville
Thibodaux
Houma
Morgan City
New Iberia
Lafayette
Opelousas
Eunice
Crowley
Jennings
Lake Charles
Sulphur
DeRidder
Leesville
Many
Natchitoches
Alexandria
Pineville
Winnfield
Jonesboro
Ruston
Minden
Shreveport
Bossier City
Benton
Arcadia
Homer
Springhill
Magnolia
El Dorado
Camden
Hope
Texarkana
Nashville
Prescott
Hot Springs
Malvern
Arkadelphia
Gurdon
Nashville
Glenwood
Mena
Waldron
Fort Smith
Van Buren
Clarksville
Russellville
Conway
Searcy
Batesville
Newport
Jonesboro
Paragould
Kennett
Sikeston
Cape Girardeau
Poplar Bluff
Doniphan
Ellington
Salem
Rolla
Waynesville
Lebanon
Springfield
Joplin
Carthage
Neosho
Monett
Aurora
Mountain Grove
West Plains
Willow Springs
Houston

DEPARTMENT OF AGRICULTURE
HENRY A. WALLACE, SECRETARY
BUREAU OF PUBLIC ROADS
THOMAS H. MACDONALD, CHIEF

UNITED STATES

RE
RY

TES
HWAYS

Population of Cities and Towns

100,000 and over . . WASHINGTON
10,000 to 99,999 . . Morgantown
Under 10,000 . . . . Waynesburg

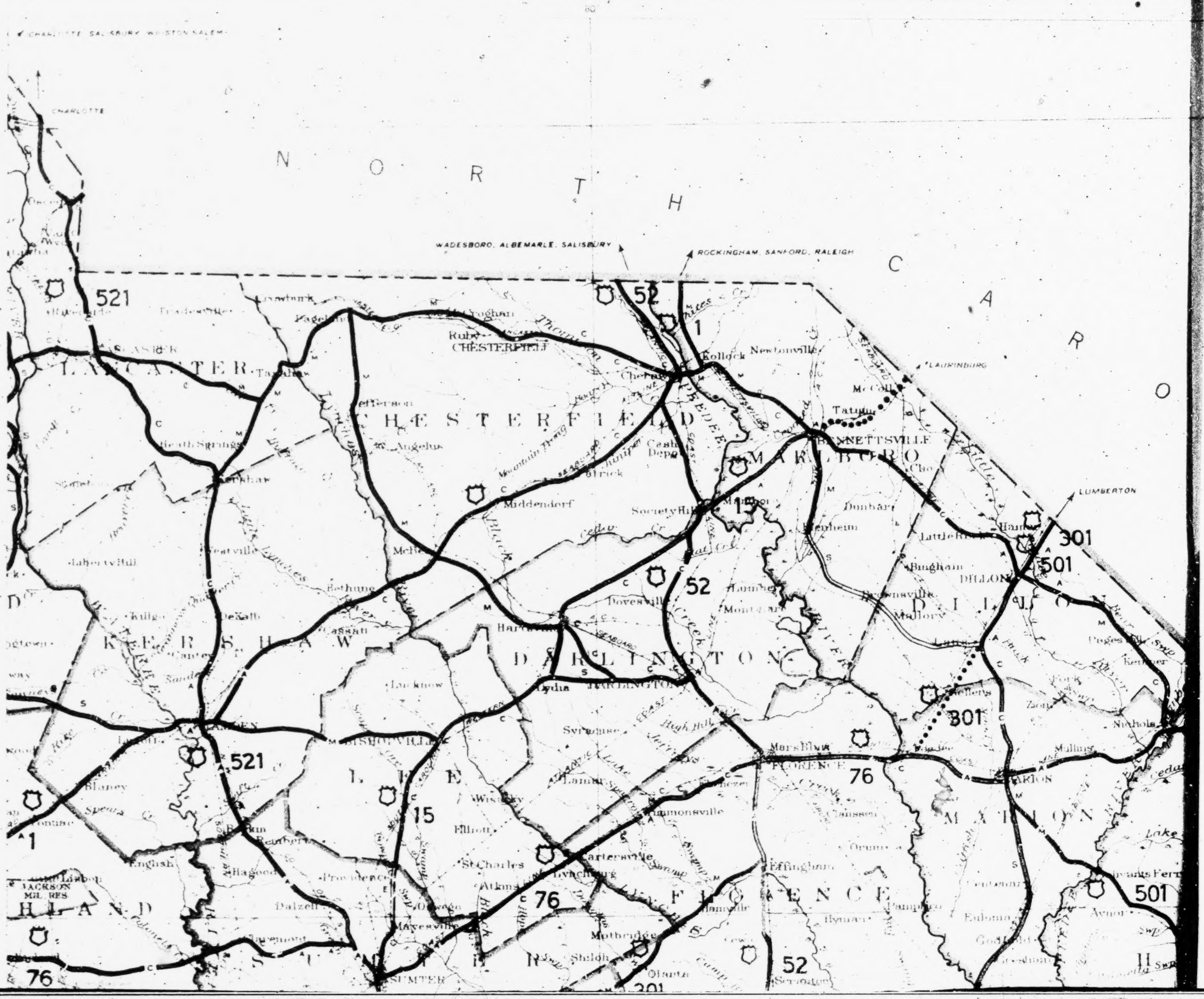
NOTE

The roads shown hereon indicate routes designated by the American Association of State Highway officials to be systematically numbered, as approved by the Secretary of Agriculture. They are not in all cases yet constructed, nor have the detailed locations been determined.

DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS

THE FEDERAL AID HIGHWAY SY

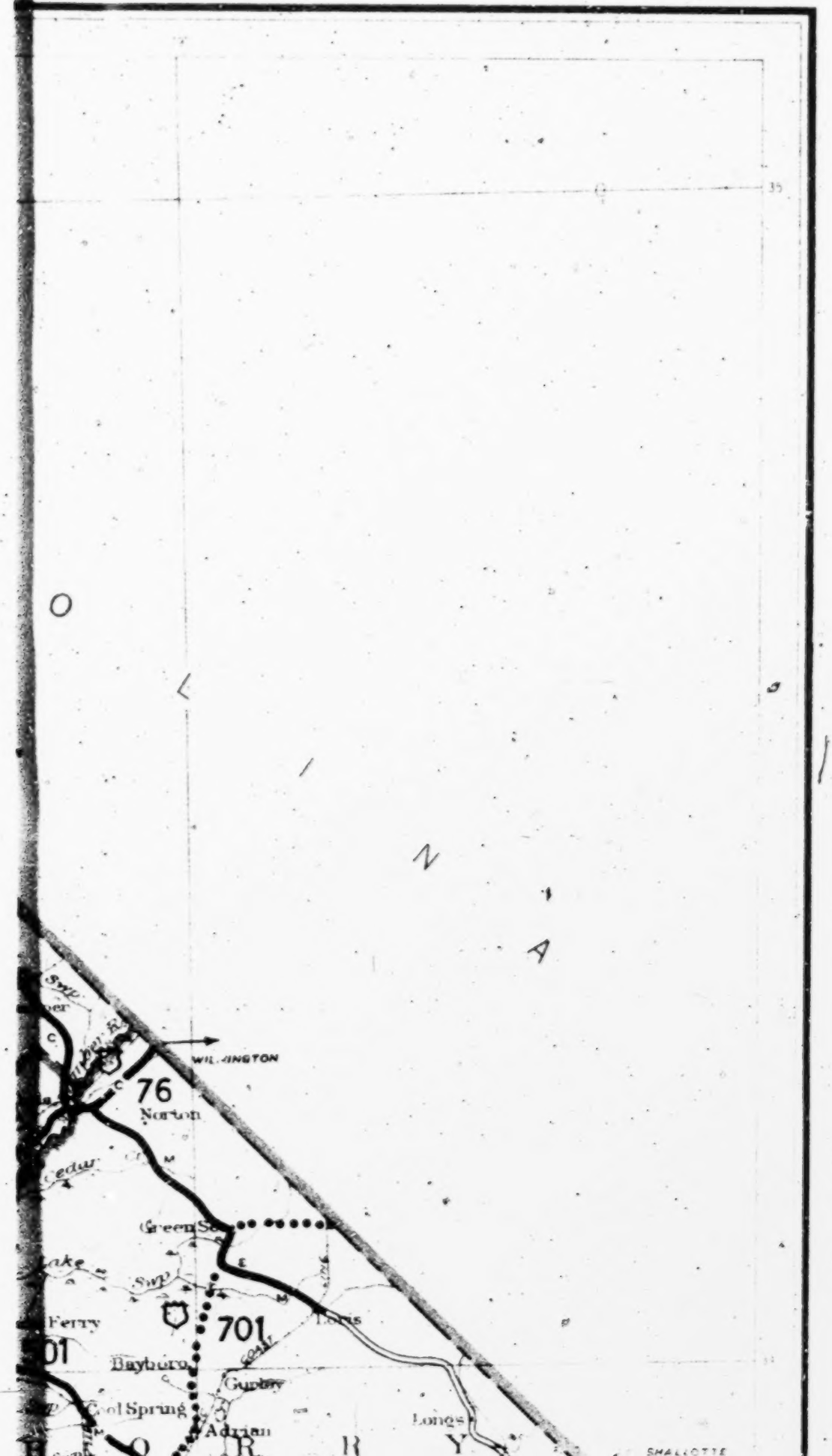
PROGRESS MAP

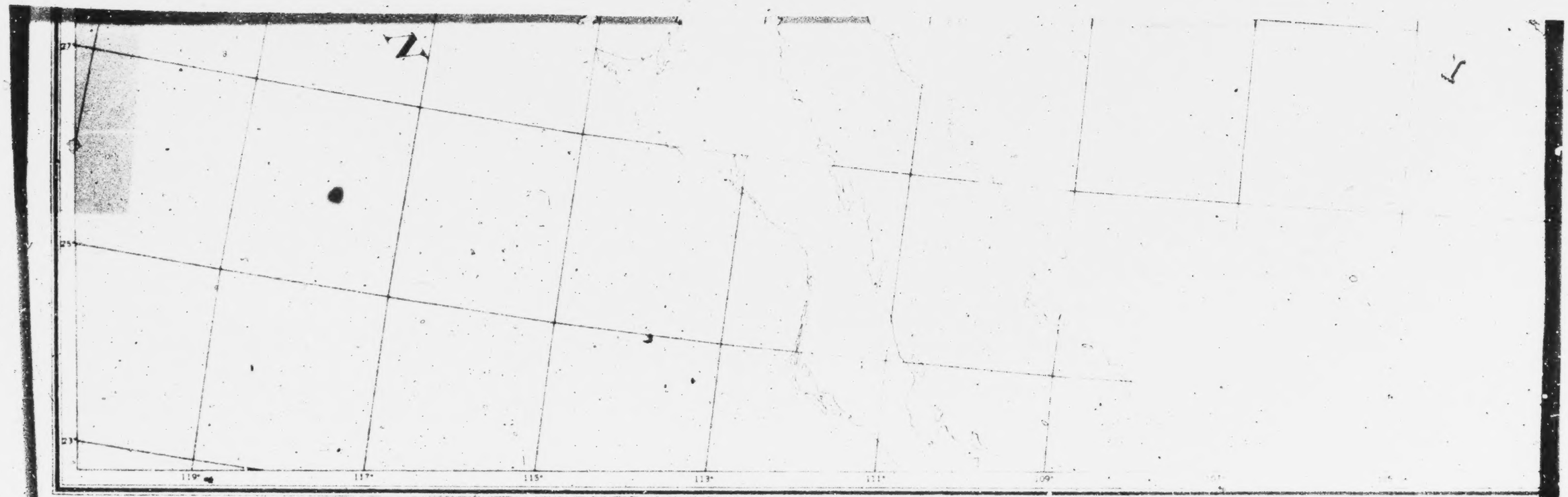

CHARLOTTE, SALISBURY, WINSTON-SALEM
CHARLOTTE
WADESBORO, ALBEMARLE, SALISBURY
ROCKINGHAM, SANFORD, RALEIGH
NORTH CAROLINA
521
52
1
15
301
501
76
LAURINBURG
LUMBERTON
LANCASTER
CHESTERFIELD
MARLBORO
DILLON
DARLINGTON
FLORENCE
MARION
HORRY
Ruby
CHESTERFIELD
Newtonville
Tatum
BENNETTSVILLE
Dunbarton
Bingham
DILLON
Mullins
Marion
Lake View
Conway
Myrtle Beach
Georgetown
Kingstree
Manning
Sumter
Florence
Darlington
Hartsville
Bishopville
Camden
Lancaster
Chesterfield
Cheraw
Pageland
Jefferson
Heath Springs
Lancaster
Middendorf
Society Hill
Dovesville
Lamar
Timmonsville
Effingham
Lake City
Andrews
Kingstree
Georgetown
Conway
Myrtle Beach
Loris
Nichols
Latta
Mullins
Marion
Lake View
Green Sea
Aynor

SYSTEM

In Evidence, Compl'ts' Exhibit No. 6 300B
Richard W. Hutson, C., D. C. U. S., E. D. S. C. 12/1/36

EASTERN SOUTH CAROLINA

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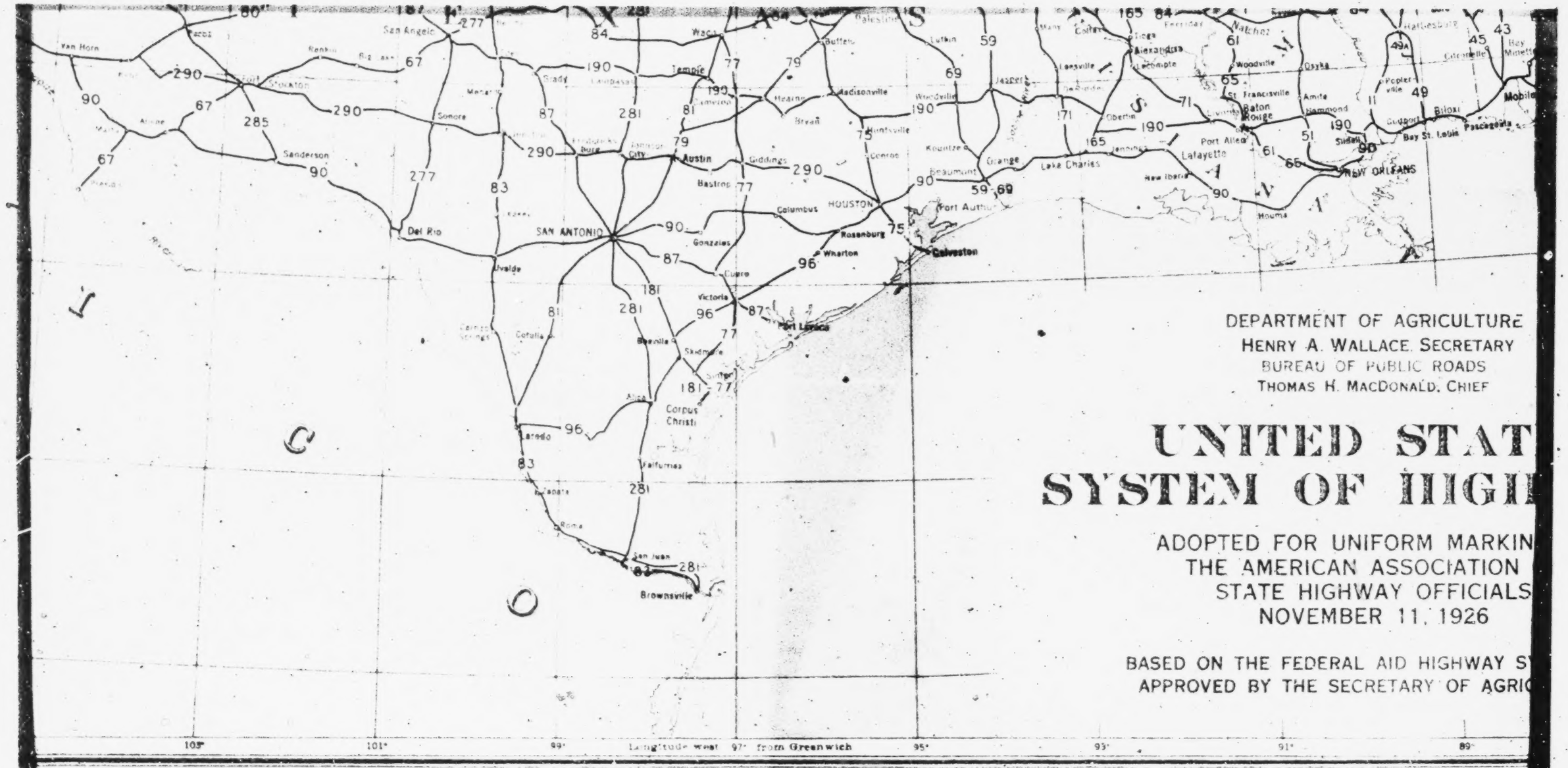
25°
23°
119°
117°
115°
113°
111°
109°

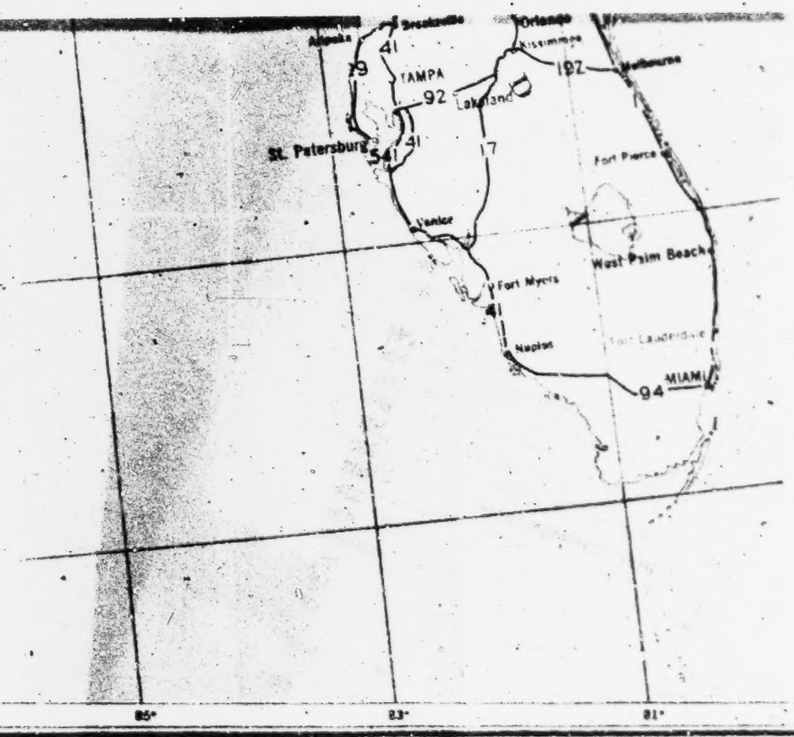

DEPARTMENT OF AGRICULTURE
HENRY A. WALLACE, SECRETARY
BUREAU OF PUBLIC ROADS
THOMAS H. MACDONALD, CHIEF
UNITED STAT
SYSTEM OF HIGH
ADOPTED FOR UNIFORM MARKIN
THE AMERICAN ASSOCIATION
STATE HIGHWAY OFFICIALS
NOVEMBER 11, 1926
BASED ON THE FEDERAL AID HIGHWAY S
APPROVED BY THE SECRETARY OF AGRIC
Longitude west from Greenwich
105°
101°
99°
97°
95°
93°
91°
89°
San Angelo
Van Horn
Sanderson
Del Rio
SAN ANTONIO
Austin
Waco
Temple
Bastrop
Giddings
Columbus
HOUSTON
Port Arthur
Galveston
Rosenburg
Wharton
Victoria
Port Lavaca
Corpus Christi
Laredo
Brownsville
Alice
Beeville
Cuero
Gonzales
Hearne
Madisonville
Huntsville
Beaumont
Orange
Lake Charles
Lafayette
New Iberia
Houma
NEW ORLEANS
Baton Rouge
Port Allen
Natchez
Woodville
Jackson
Meridian
Hattiesburg
Biloxi
Gulfport
Bay St. Louis
Pascagoula
Mobile

NT OF AGRICULTURE
WALLACE, SECRETARY
OF PUBLIC ROADS
H. MACDONALD, CHIEF

D STATES
OF HIGHWAYS

UNIFORM MARKING BY
CAN ASSOCIATION OF
GHWAY OFFICIALS
MBER 11, 1926

ERAL AID HIGHWAY SYSTEM AS
SECRETARY OF AGRICULTURE



Population of Cities and Towns

100,000 and over . . . WASHINGTON
10,000 to 99,999 . . . Morgantown
Under 10,000 . . . Waynesburg

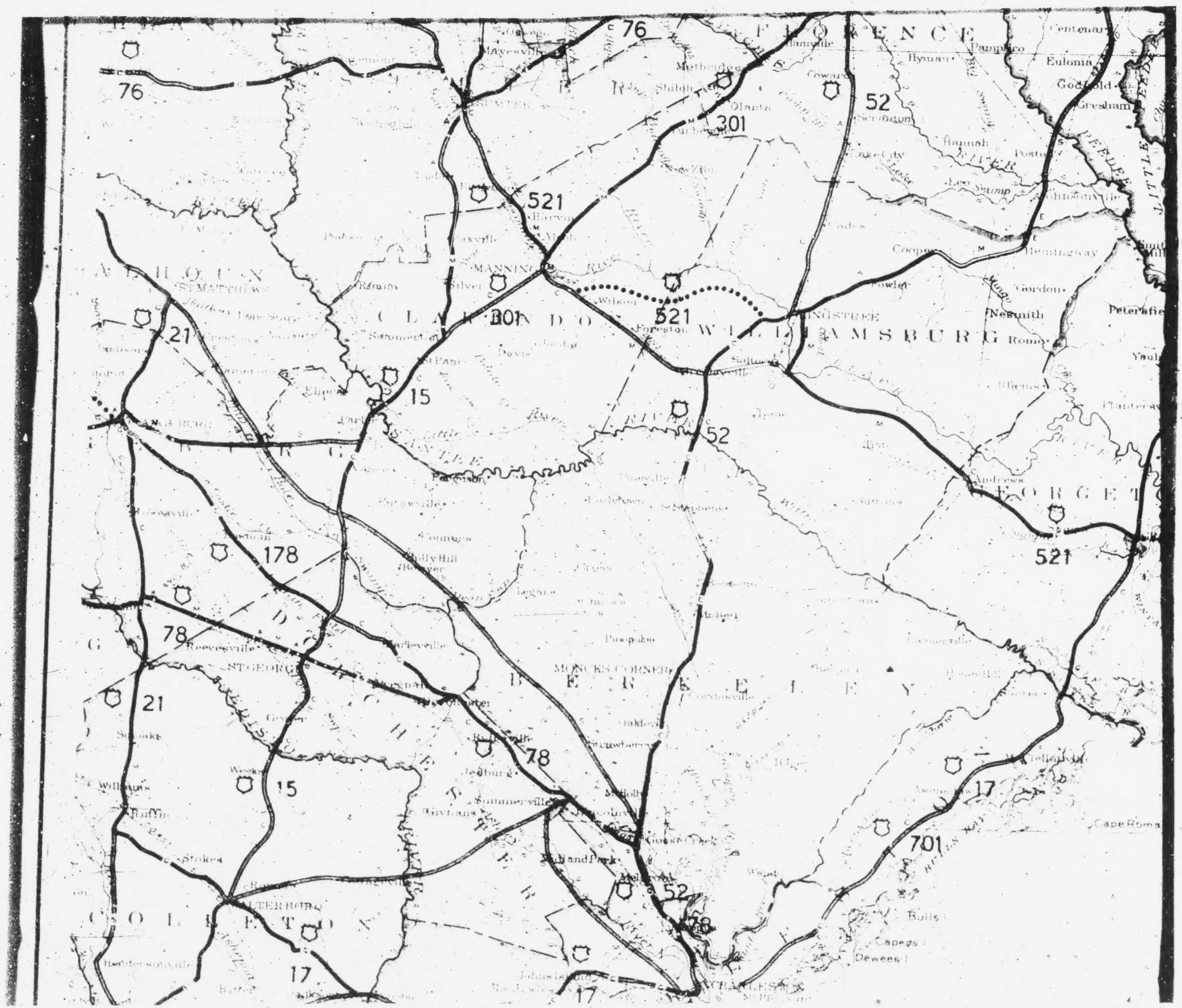
NOTE

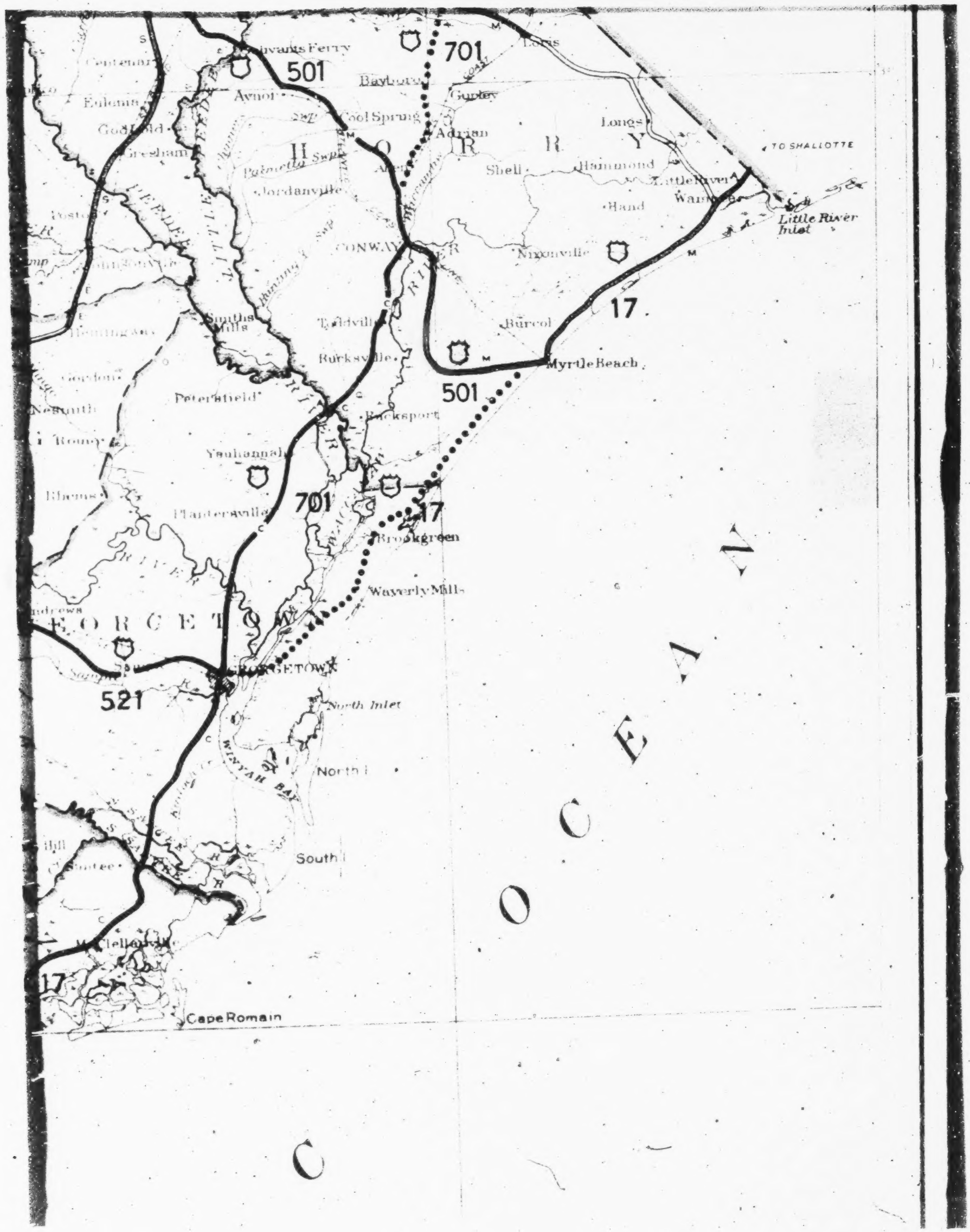
The roads shown hereon indicate routes designated by the American Association of State Highway officials to be systematically numbered, as approved by the Secretary of Agriculture. They are not in all cases yet constructed, nor have the detailed locations been determined.

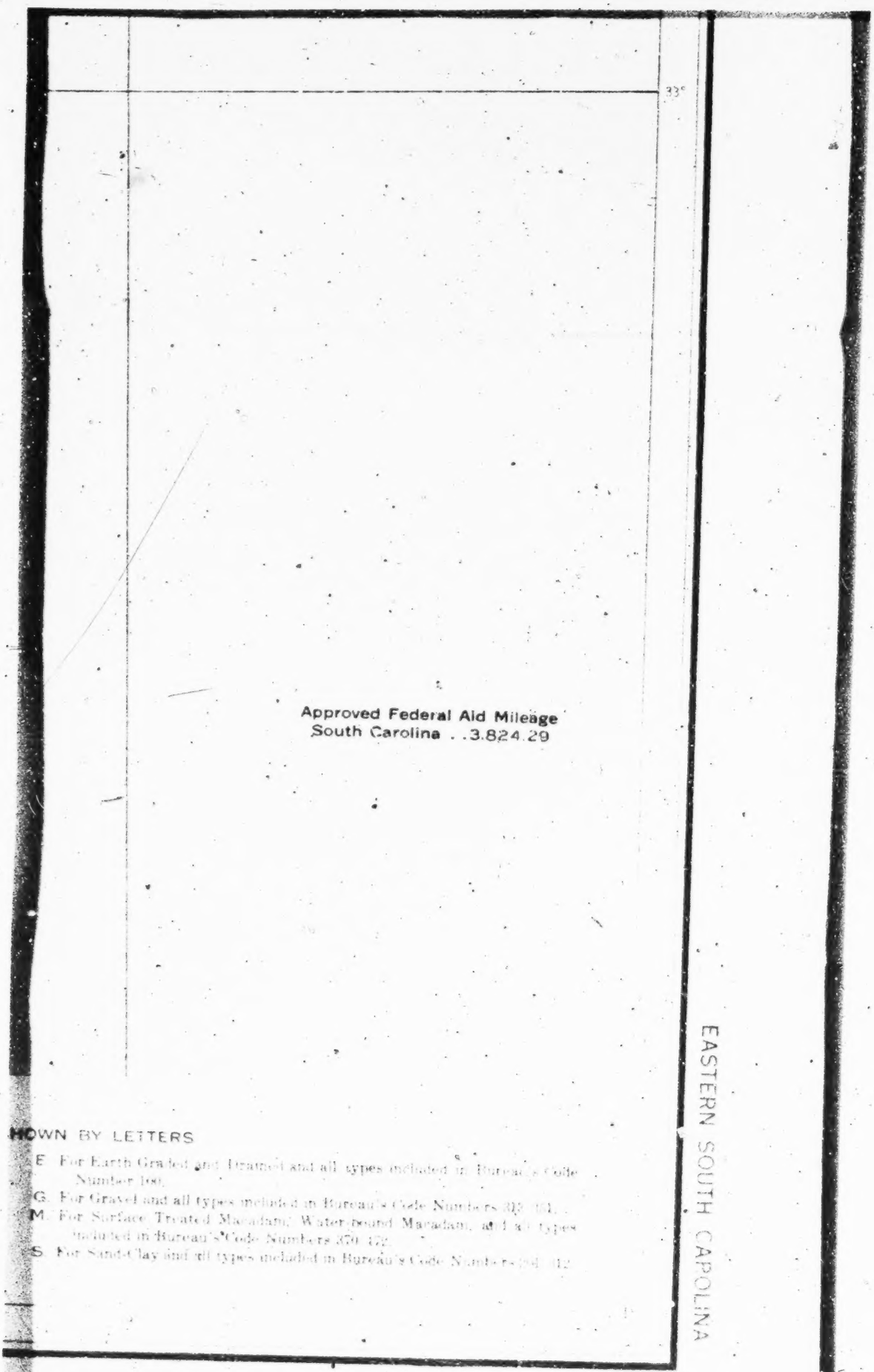
STATUTE MILES

——— United States Highways

Corrected to July 1, 1935


76
301
521
52
21
15
178
78
17
701
FLORENCE
CLARENDON
WILLIAMSBURG
GEORGETOWN
BERKELEY
COLLETON
CHARLESTON
Centenary
Pamplico
Hyman
Eulonia
Godfrey
Gresham
Scranton
Hannah
Lake City
Lee Swamp
Johnsonville
Coopers
Bloomingvale
Gordon
Nesmith
Peterbfie
Romo
Yaul
Andrews
Plantersv
Manning
Silver
Wilson
Foreston
Davis
Ellipse
Pamplico
Timmonsville
Olanta
Scranton
Lake City
Effingham
Johnsonville
Coopers
Fowler
Nesmith
Romo
Andrews
Salters
Summerville
Jedburg
Williams
Ravenel
Oakley
Awendaw
Cape Roma
Bulls I
Capers I
Dewees I


701
501
Georgetown
Avnor
Cool Spring
Adrian
Longs
TO SHALLOTTE
Shell
Hammond
Little River
Little River Inlet
Hand
Nixonville
CONWAY
Burcol
17
Myrtle Beach
501
Peterfield
Buckspport
Yauhannah
701
17
Brookgreen
Wayerly Mills
GEORGETOWN
521
North Inlet
WINYAH BAY
South I
17
Cape Romain
OCEAN



HOWN BY LETTERS

E For Earth Graded and Drained and all types included in Bureau's Code Number 100.

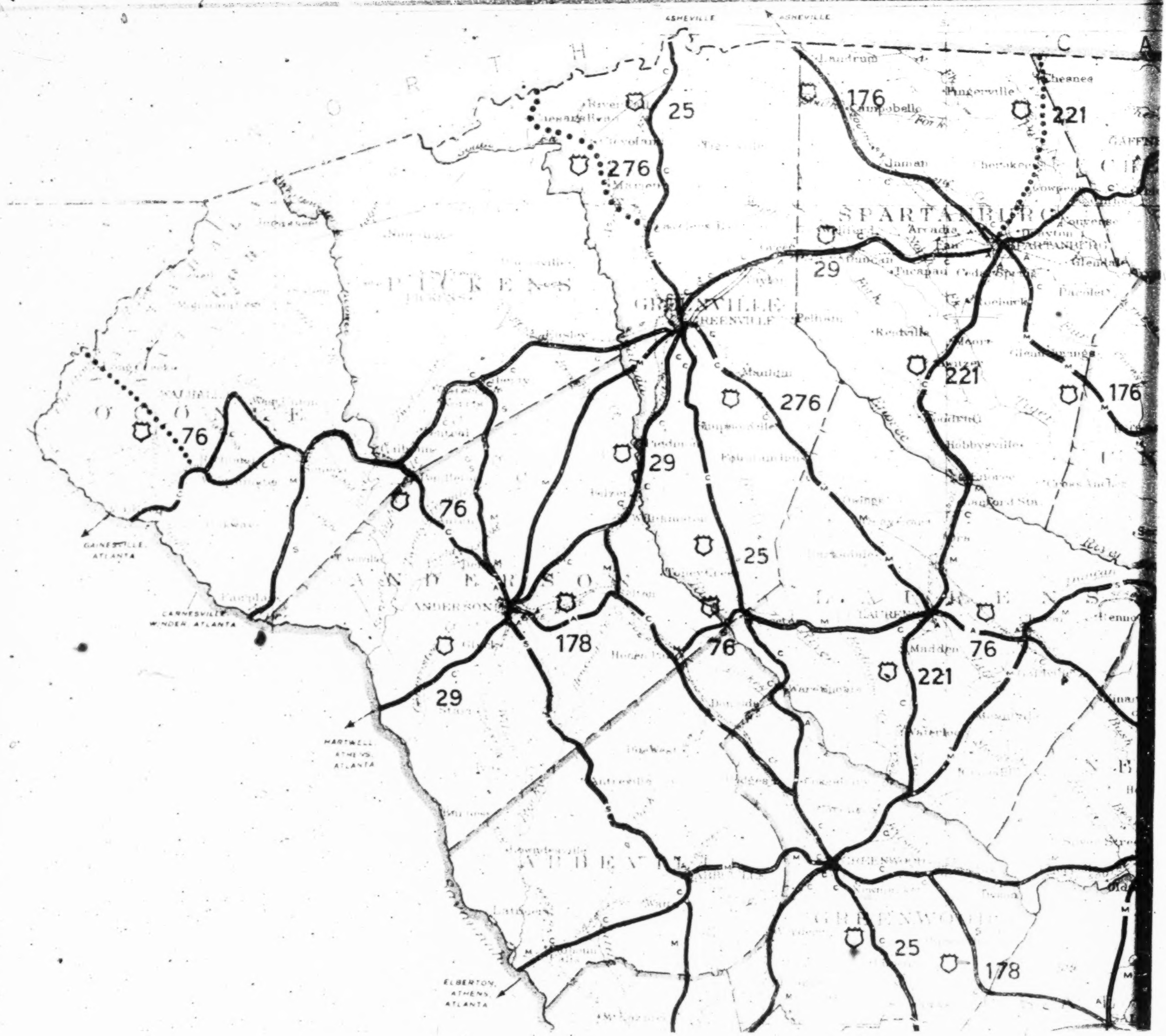
G For Gravel and all types included in Bureau's Code Numbers 202-204.

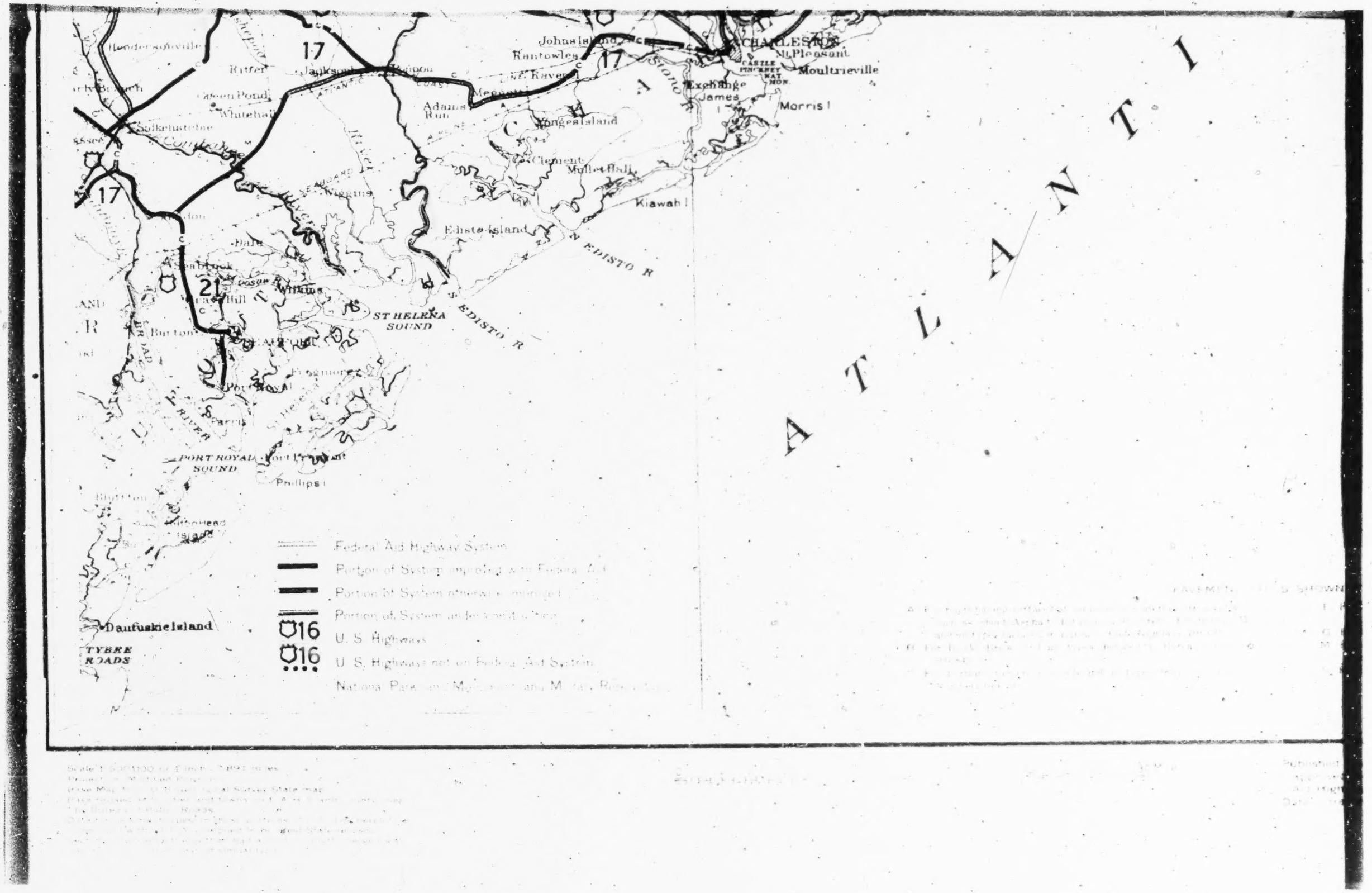
M For Surface Treated Macadam, Water-bound Macadam, and all types included in Bureau's Code Numbers 370-372.

S For Sand-Clay and all types included in Bureau's Code Numbers 304-312.

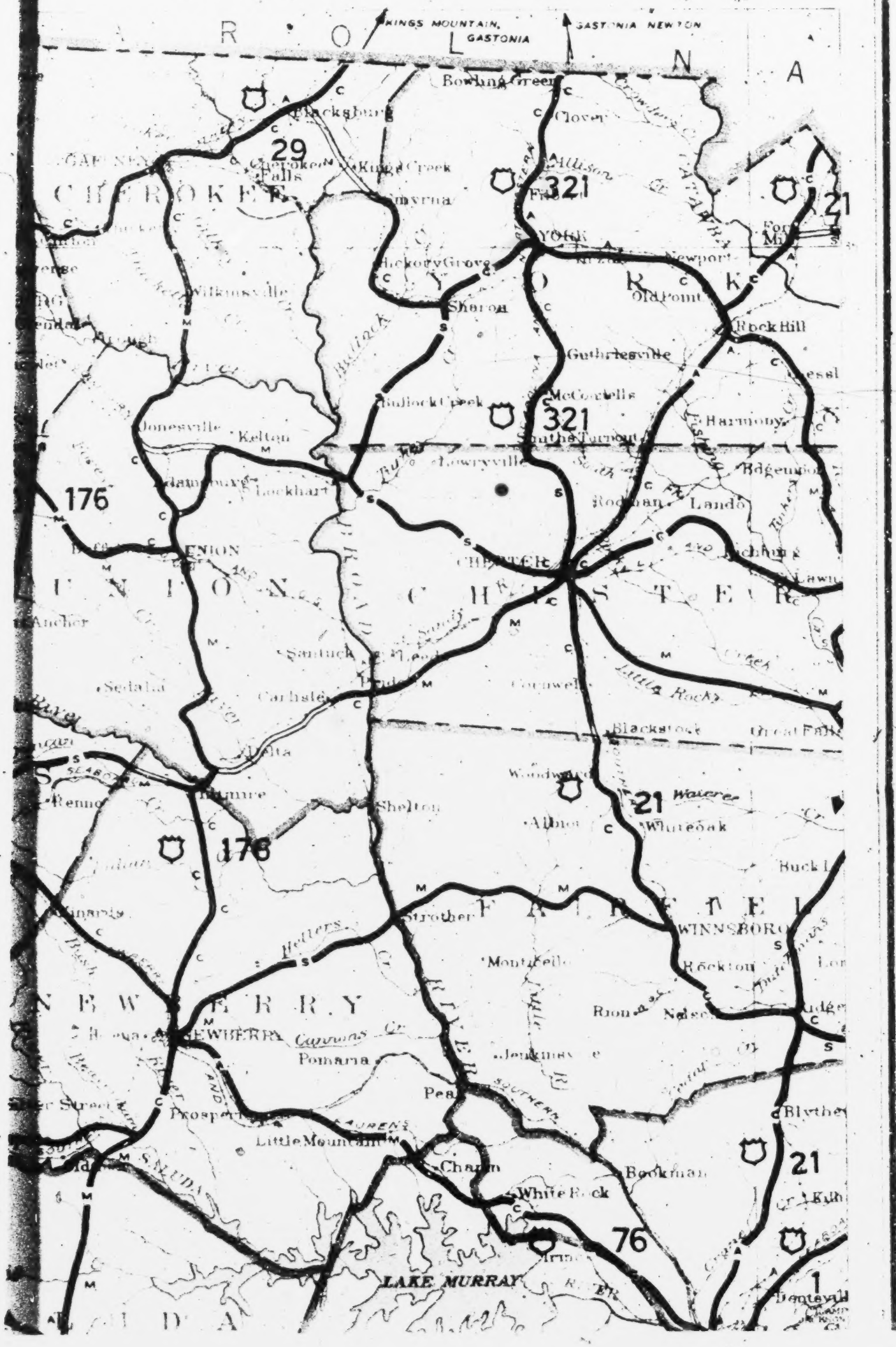
lished in accordance with Act of Congress
pproved Nov. 9, 1921, creating the Federal
d Highway System
s corrected to May 1, 1939

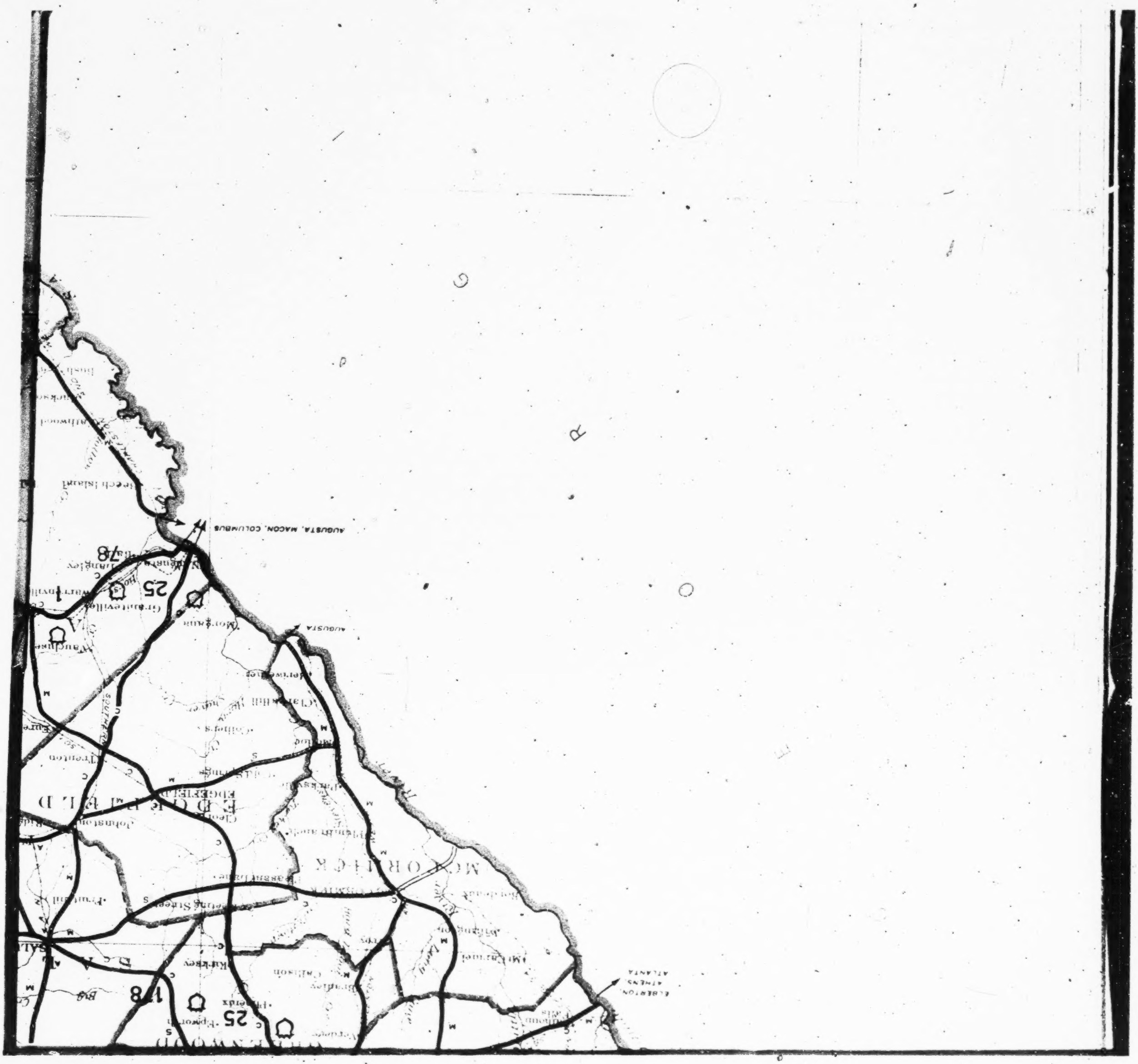
THE FEDERAL AID HIGHWAY
PROGRESS MAP

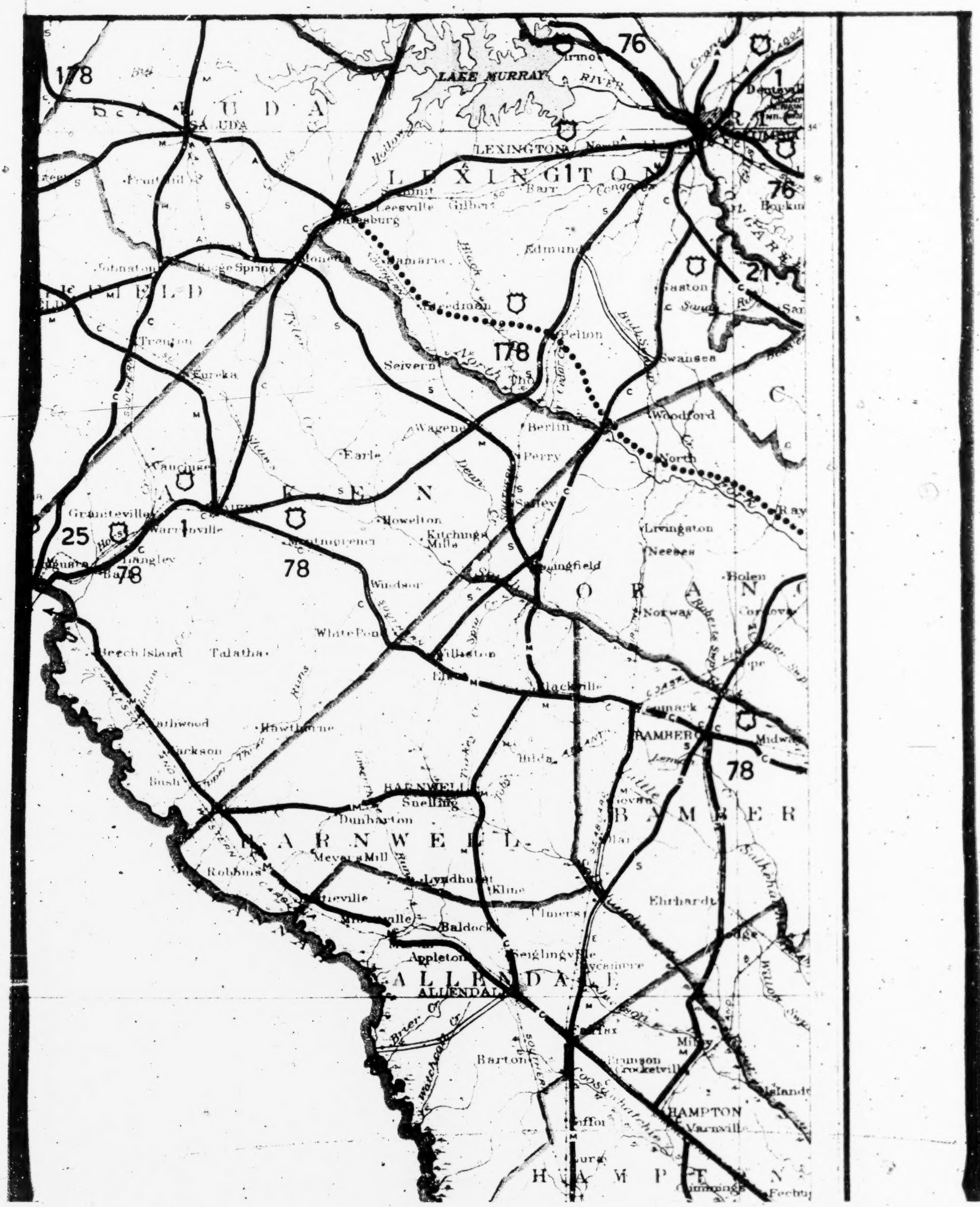


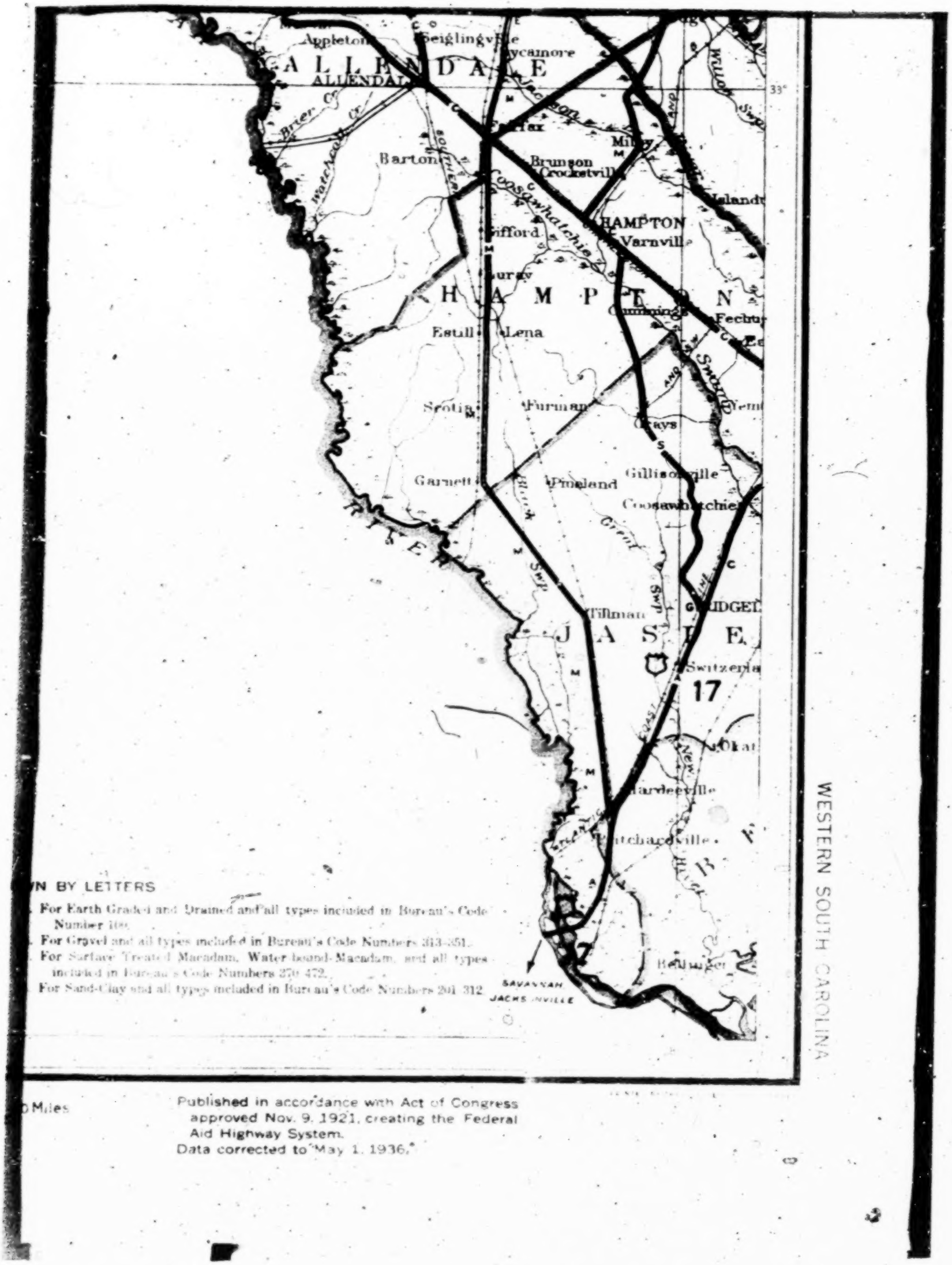

Johns Island
Rantowles
CHARLESTON
Mt Pleasant
Moultrieville
Exchange
James
Morris I
Adams Run
Yonges Island
St Clement
Mullet Hall
Kiawah I
Edisto Island
N EDISTO R
S EDISTO R
ST HELENA SOUND
Whitehall
Jacksonboro
Ritter
Green Pond
Walterboro
Hendersonville
Burton
Port Royal
PORT ROYAL SOUND
Phillips I
Hilton Head Island
Daufuskie Island
TYBEE ROADS
ATLANTI
Federal Aid Highway System
Portion of System improved with Federal Aid
Portion of System otherwise improved
Portion of System under construction
U. S. Highways
U. S. Highways not on Federal Aid System
National Park or Monument and Military Reservation

WESTERN SOUTH CAROLINA




AUGUSTA, MACON, COLUMBUS
AUGUSTA
ELBERTON, ATHENS ATLANTA
MACON
EDGEFIELD
78
25
185


LAKE MURRAY
RIVER
LEXINGTON
AIKEN
BARNWELL
ALLENDALE
HAMPTON
BAMBERG
ORANGEBURG
CALHOUN
Irmo
Lexington
Leesville
Gilbert
Batesburg
Edmund
Johnston
Ridge Spring
Trenton
Eureka
Salley
Wagener
Berlin
Perry
Williston
Blackville
Barnwell
Snelling
Dunbarton
Meyers Mill
Robbins
Lynchburg
Kline
Baldock
Appleton
Ehrhardt
Denmark
Midway
Olar
Barton
Brunson
Estill
Varnville
Gifford
Furman
Graniteville
Warrenville
Langley
Howellton
Kitchings Mills
Windsor
Beech Island
Talatha
Hawthorne
Jackson
Bush
Swansea
Woodford
North
Livingston
Neeses
Bolen
Norway
Cordova
Elloree
Gaston
Sandy Run
Creek
Bull Swamp
Cedar Creek
Turkey Creek
Horse Creek
Deans Creek
Spring Creek
Rocky Creek
Tinker Creek
Hollow Creek
Briar Creek
Coosawhatchie
Little Salkehatchie
Salkehatchie
Jackson Swamp
Willow Swamp
Coast Line
Southern
Seaboard
Atlantic Coast Line
Seaboard Air Line
Charleston & Western Carolina
Augusta Southern
Aiken
Augusta
Columbia
Charleston
Savannah
Florence
Orangeburg
Barnwell
Hampton
Allendale
Bamberg
Calhoun
Lexington
Richland
Edgefield
Saluda
Newberry
Fairfield
Kershaw
Lee
Sumter
Clarendon
Williamsburg
Georgetown
Horry
Marion
Dillon
Marlboro
Chesterfield
Darlington
Florence
Berkeley
Dorchester
Colleton
Jasper
Beaufort
Orangeburg
Calhoun
Bamberg
Barnwell
Allendale
Hampton
Aiken
Edgefield
Saluda
Lexington
Richland
Newberry
Fairfield
Kershaw
Lee
Sumter
Clarendon
Williamsburg
Georgetown
Horry
Marion
Dillon
Marlboro
Chesterfield
Darlington
Florence
Berkeley
Dorchester
Colleton
Jasper
Beaufort
76
178
78
25
1
21



N BY LETTERS

For Earth Graded and Drained and all types included in Bureau's Code Number 100.

For Gravel and all types included in Bureau's Code Numbers 313-351.

For Surface Treated Macadam, Water bound Macadam, and all types included in Bureau's Code Numbers 270-472.

For Sand-Clay and all types included in Bureau's Code Numbers 201-312.

Miles

Published in accordance with Act of Congress approved Nov. 9, 1921, creating the Federal Aid Highway System.
Data corrected to May 1, 1936.

A

Approved Federal Aid Mileage
South Carolina 3,824.29

Federal Aid Highway System
Portion of System improved with Federal Aid
Portion of System otherwise improved
Portion of System under construction
U. S. Highways
U. S. Highways not on Federal Aid System
National Forests
National Parks and Monuments and Military Reservations

83°

PAVEMENT TYPES SHOWN BY

A. For roads having surfaces of bituminous materials irrespective of base: such as Sheet Asphalt, Bituminous Concrete, Bituminous Macadam, and all types included in Bureau's Code Numbers 480-489

B. For Brick, Block, and all types included in Bureau's Code Numbers 580-582

C. For Portland Cement Concrete and all types included in Bureau's Code Numbers 590-599

E. For E... Nu...

G. For C...

M. For S... incl...

S. For S...

Scale 1 500,000, or 1 inch = 7.891 miles
Projection Modified Polyconic
Base Map from U. S. Geological Survey State map.
Base revised as to cities and towns on F. A. H. S. and county lines by Bureau of Public Roads.
Data for pavement types on those portions of F. A. H. S. heretofore improved without F. A. compiled from latest State records.
Sections of pavement less than half a mile in length merged with adjacent section of nearest similar type.

0 10 20 30 Miles

[Endorsed:] File No. 41,642. E. South Carolina. D. C. U. S. Term No. 161. South Carolina State Highway Department, South Carolina Public Service Commission et al., appellants, vs. Barnwell Brothers, Inc., Poole Transportation, Inc., Horton Motor Lines, Inc., et al. Filed June 21, 1937. Term No. 161, O. T., 1937.